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ADDRESSES.

THE RELATION OF BACTERIA TO PRACTICAL SURGERY.

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The revolution which has occurred in practical surgery since the discovery of the relation of microörganisms to the complications occurring in wounds has caused me to take up this subject for discussion. Although many of my hearers are familiar with the germ theory of disease, it is possible that it may interest some to have put before them, in a short address, a few points in bacteriology, which are of value to the practical surgeon.

It must be remembered that groups of symptoms which were formerly classed under the heads of "inflammatory fever," "symptomatic fever," "traumatic fever," "hectic fever," and similar terms, varying in name with the surgeon using them, or with the location of the disease, are now known to be due to the invasion of the wound by microscopic plants. These bacteria, after entering the blood current at the wound, multiply with such prodigious rapidity that the whole system gives evidence of their existence. Suppuration of wounds is undoubtedly due to these organisms, as is tubercular disease, whether of a surgical or medical character. Tetanus, erysipelas and many other surgical conditions have been almost proved to be the result of infection by similar microscopic plants, which, though acting in the same way, have various forms and life-histories.

A distinction must be made between the "yeast plants," one of which produces thrush, and the "mould plants," the existence of which as parasites in the skin gives rise to certain cutaneous diseases. These two classes of vegetable parasites are foreign to the present topic, which is surgery; and I shall, therefore, confine my remarks to that group of vegetable parasites to which the term bacteria has been given. These are the microorganisms whose actions and methods of growth particularly concern the surgeon. The individual plants are so minute that it takes in the neighborhood of ten or fifteen hundred of them grouped together to cover a spot as large as the full stop or period used in punctuating an ordinary newspaper. This rough estimate applies to the globular or egg-shaped bacteria to which is given the name "coccus" (plural cocci). The cane, or rod-shaped bacteria are rather larger plants. Fifteen hundred of these placed end to end would reach across the head of a pin. Because of the resemblance of these latter to a walking stick they have been termed bacillus (plural bacilli).

The bacteria most interesting to the surgeon belong to the cocci and the bacilli. There are other forms which bacteriologists have dubbed with similar descriptive names, but they are more interesting to the physician than to the surgeon. Many microörganisms, whether cocci, bacilli, or of other shapes, are harmless; hence they are called non-pathogenic, to distinguish them from the disease-producing, or pathogenic germs.

As many trees have the same shape and a similar method of growing, but bear different fruit; —in the one case edible, and in the other poisonous—so, too, bacteria may look alike to the microscopist's eye, and grow much in the same way, but one will cause no disease, while the other will produce serious disease, such, perhaps, as tuberculosis of the lungs or brain.

Many scores of bacteria have been, by patient study, differentiated from their fellows and given distinctive names. Their nomenclature corresponds in classification and arrangement with the nomenclature adopted in different departments of botany. Thus, we have the pus-causing chain coccus (streptococcus pyogenes), so called because it is globular in shape; because it grows with the individual plants attached to each other, or arranged in a row like a chain of beads upon a string; and because it produces pus. In a similar way we have the pus-causing grape-coccus of a golden color (staphylococcus pyogenes aureus). It produces pus, grows with the individual plants arranged somewhat after the manner of a bunch of grapes, and when millions of them are collected together the mass has a golden yellow hue. Again, we have the bacillus tuberculosis; the rod-shaped plant which is known to cause tuberculosis of the lungs, joints, brain, etc.

It is hardly astonishing that these fruitful sources of disease have so long remained undetected, when their microscopic size is borne in mind. That some of them do cause disease is indisputable, since bacteriologists have, by their watchful and careful methods, separated a single plant from its surroundings and congeners, planted it free from all contamination and observed it produce an infinitesimal brood of its own kind. Animals and patients inoculated with the plants thus cultivated have rapidly become subjects of the special disease which the particular plant was supposed to produce.

The difficulty of such investigations becomes apparent when it is remembered that under the microscope many of these forms of vegetable life are identical in appearance, and it is only by observing their growth, when in proper soil, that they can be distinguished from each other. In certain cases it is quite difficult to distinguish them by their physical appearances produced during their growth. In such instances it is only after an animal has been inoculated with them that the individual parasite can be accurately recognized and called by name. It is known by the results it is capable of producing.

The various forms of bacteria are recognized, as I have said, by their method of growth, and by their shape. Another means of recognition is their individual peculiarity of taking certain dyes so that special plants can be recognized, under the microscope, by the color given to them, which they refuse to give up when treated with chemical substances which remove the stains from, or bleach, all the other tissues which at first have been similarly stained.

The similarity between bacteria and the ordinary plants with which florists are familiar is indeed remarkable. Bacteria grow in animal and other albuminous fluids, as a soil, but it is just as essential for them to have a suitable soil as it is for the corn or wheat that the farmer plants in his field. By altering the character of the albuminous fluid in which the microörganism finds its subsistence, these small plants can be given a vigorous growth or may be actually starved to death. The farmer knows that it is impossible for him to grow the same crop year after year in the same field, and he is, therefore, compelled to rotate his crops. So it is with these microscopic plants which we are considering. After a time the culture fluid or soil becomes so exhausted of its needed constituents by the immense number of plants living in it that it is unfit for their life and development. Then this particular plant will no longer thrive, but some other form of bacterium may find in it the properties required for functional activity, and grow vigorously. It is probable that exhaustion or absence of proper soil is an important agent in protecting man from sickness due to infection from bacteria. The ever present bacteria often gains access to man's blood through external wounds, or through the lungs and digestive tracts; but unless a soil suited for their development is found in his fluids, the plants will not grow. If they do not grow and increase in numbers they can do little harm.

Again, there are certain bacteria which are so antagonistic to each other that it is impossible to make them grow in company, or to co-exist in the blood of the same individual. For example, an animal inoculated with erysipelas germs cannot be successfully inoculated immediately afterward with the germs of malignant pustule. Such antagonism is illustrated by the impossibility of having a good crop of grain in a field overrun with daisies. On the other hand, however, there are some microörganisms which flourish luxuriantly when planted together in the same fluid, somewhat after the manner of pumpkins and Indian corn growing between the same fence rails. Others seem unwilling to grow alone, and only flourish when planted along with some other germs. It is very evident, therefore, that bacteriology is a branch of botany, and that Nature shows the same tendencies in these minute plants as it does in the larger vegetable world visible to our unaided eyes.

As the horticulturist is able to alter the character of his plants by changing the circumstances under which they live, so can the bacteriologist change the vital processes and activities of bacteria by chemical and other manipulations of the culture substances in which these organisms grow. The power of bacteria to cause pathological changes thus may be weakened and attenuated; in other words, their functional power for evil is taken from them by alterations in the soil. The pathogenic, or disease-producing power, may be increased by similar, though not identical, alterations. The rapidity of their multiplication may be accelerated, or they may be compelled to lie dormant and inactive for a time; and on the other hand, by exhausting the constituents of the soil upon which they depend for life, they may be killed.

It is a most curious fact also that it is possible, by selecting and cultivating only the lighter colored specimens of a certain purple bacterium, for the bacteriologist to finally obtain a plant which is nearly white, but which has the essential characteristics of the original purple fungus. In this we see the same power which the florist has to alter the color of the petals of his flowers by various methods of selective breeding.

The destruction of bacteria by means of heat and antiseptics is the essence of modern surgery. It is, then, by preventing access of these parasitic plants to the human organism (aseptic surgery), or the destruction of them by chemical agents and heat (antiseptic surgery), that we are enabled to invade, by operative attacks, regions of the body which a few years ago were sacred.

When the disease-producing bacteria gain access to the tissues and blood of human and other animals by means of wounds, or through an inflamed pulmonary or alimentary mucous membrane, they produce pathological effects provided there is not sufficient resistence and health power in the animal's tissues to successfully antagonize the deleterious influence of the invading parasitic fungus. It is the rapid multiplication of the germs, which furnishes a continuous irritation, that enables them to have such a disastrous effect upon the tissues of the animal. If the tissues had only the original dose of microbes to deal with, the warfare between health and disease would be less uncertain in outcome. Victory would usually be on the side of the tissues and health.

The immediate cause of the pathogenic influence is probably the chemical excretions which are given out by these microscopic germs. All plants and animals require a certain number of substances to be taken into their organisms for preservation of their vital activities. After these substances have been utilized there occurs an excretion of other chemical products. It is probably the excretions from the many millions of bacteria circulating in the blood which give rise to the disease characteristic of the fungus with which the animal has been infected. The condition called sapræmia, or septic intoxication, for example, is undoubtedly due to the entrance of the excretory products (ptomaines) of putrefaction-bacteria into the circulation. This can be proved by injecting into an animal a small portion of these products obtained from cultures of the germs of putrefaction. Characteristic symptoms will at once be exhibited.

Septicæmia is a similar condition due to the presence of the putrefactive organisms themselves, and hence of their products or ptomaines also in the blood. The rapidity of their multiplication in this albuminous soil, and the great amount of excretion from the numerous fungi, makes the condition more serious than sapræmia. Clinically, the two conditions occur together.

The rapidity with which symptoms may arise after inoculation of small wounds with a very few germs will be apparent when it is stated that one parasitic plant of this kind may, by its rapidity of multiplication, give rise to fifteen or sixteen million individuals within twenty-four hours. The enormous increase which takes place within three or four days is almost incalculable. It has been estimated that a certain bacillus only about 1-1000 of an inch in length could, under favorable conditions, develop a brood of progeny in less than four days which would make a mass of fungi sufficient to fill all the oceans of the world if they all had a depth of one mile.

Bacteria are present everywhere. They exist in the water, earth, air, and within our respiratory and digestive tracts. Our skin is covered with millions of them, as is every article about us. They can circulate in the lymph and blood, and reach every tissue and part of our organisms by passing through the walls of the capillaries. Fortunately, they require certain conditions of temperature, moisture, air and organic food for existence, and for the preservation of their vital activities.

If their surroundings are too hot, too cold, or too dry, or if they are not supplied with a proper quantity and quality of food from the soil in which they are living, the bacterium becomes inactive, until the surrounding circumstances change, or die absolutely. The spores which finally become full-fledged bacteria, are able to stand a more unfavorable environment than the adult bacteria. Many spores and adults, however, perish. Each kind of bacterium requires its own special environment to permit it to grow and flourish. The frequency with which an unfavorable combination of circumstances occurs limits greatly the disease-producing power of the pathogenic bacteria.

Many bacteria, moreover, are harmless and do not produce disease even when present in the blood and tissues. Besides this the white blood cells are perpetually waging war against the bacteria in our bodies. They take the bacteria into their interiors and render them harmless by eating them up, so to speak; and they crowd together and form a wall of white blood cells around the place where the bacteria entered the tissues, thus forming a barrier to cut off the blood supply to the germs and perhaps to prevent them from entering the general blood current.

The war between the white blood cells and bacteria is a bitter one. Many bacteria are killed; but, on the other hand, the life of many blood cells is sacrificed by the bacteria poisoning them with ptomaines. The tissue cells, if healthy, offer great resistance to the attacks of the army of bacteria. Hence, if the white cells are vigorous and abundant at the site of the battle, defeat may come to the bacteria, and the patient suffers nothing from the attempt of these vegetable parasites to harm him. If, on the other hand, the tissues have a low resistive power, because of the general debility of the patient, or of a local debility of the tissues themselves, and the white cells be weakened and not abundant, the bacteria will gain the victory, get access to the general blood current and invade every portion of the animal's body. Thus, a general, or a local, disease, will be caused; varying with the species of bacteria with which the patient has been infected, and the degree of resistance on the part of the tissues.

From what has been stated, it must be evident that the bacterial origin of disease depends upon the presence of a disease-producing fungus and a diminution of the normal or healthy tissue-re-

sistance to bacterial invasion. If there is no fungus present, the disease caused by such fungus cannot develop. If the fungus be present, and the normal or health tissue resistance be *undiminished*, it is probable that disease will not occur. As soon, however, as over-work, injury of a mechanical kind, or any other cause diminishes the local or the general resistance of the tissues and individual, the bacteria have the upper hand, and are able to produce their malign effect.

Many conditions favor the bacterial attack. The patient's tissues may have an inherited peculiarity, which renders it easy for the bacteria to find a good soil for development; an old injury or inflammation may render the tissues less resistant than usual; the point at which inoculation has occurred may have certain anatomical peculiarities which make it a good place in which bacteria may multiply; the blood may have undergone certain chemical changes which render it better soil than usual for the rapid growth of these parasitic plants.

The number of bacteria originally present makes a difference also. It is readily understood that the tissues and white blood cells would find it more difficult to repel the invasion of an army of a million microbes, than the attack of a squad of ten similar fungi. I have said that the experimenter can weaken and augment the virulence of bacteria by manipulating their surroundings in the laboratory. It is probable that such a change occurs in nature. If so, some bacteria are more virulent than others of the same species; some less virulent. A few, of the less virulent disposition, would be more readily killed by the white cells and tissues than would a larger number of more virulent ones. At other times times the danger from microbic infection is greater because there are two species introduced at the same time; and these two multiply more vigorously when together than when separated. They are, in fact, two allied hosts trying to destroy the blood cells and tissues. This occurs, for instance, when the bacteria of putrefaction and the bacteria of suppuration are introduced into the tissues at the same time. The former causes sapræmia and septicæmia, the latter cause suppuration. The bacteria of tuberculosis are said to act more viciously if accompanied by the bacteria of putrefaction. Osteomyelitis is of greater severity, it is believed, if due to a mixed infection with both the white and the golden grape-coccus of suppuration.

I have previously mentioned that the bacteria of malignant pustule are powerless to do harm when the germs of erysipelas are present in the tissues and blood. This is an example of the way in which one species of bacteria may actually aid the white cells, or leucocytes, and the tissues in repelling an invasion of disease-producing microbes.

Having occupied a portion of the time allotted to me in giving a crude and hurried account of the characteristics of bacteria, let me discuss the relations of bacteria to the diseases most frequently met with by the surgeon.

Mechanical irritations produce a very temporary and slight inflammation, which rapidly subsides; because of the tendency of nature to restore the parts to health. Even severe injuries, therefore, will soon become healed and cured, if no germs enter the wound.

Suppuration of operative and accidental wounds was, until recently, supposed to be essential. We now know, however, that wounds will not suppurate if kept perfectly free from one of the dozen forms of bacteria that are known to give rise to the formation of pus.

The doctrine of present surgical pathology is that suppuration will not take place, if pus-forming bacteria are kept out of the wound, which will then heal by first intention without inflammation and without "inflammatory" fever.

In making this statement I am not unaware that there is a certain amount of fever following various severe wounds within twenty-four hours, even when no suppuration occurs. This wound-fever, however, is transitory, not high, and entirely different from the prolonged condition of high temperature formerly observed nearly always after operations and injuries. The occurrence of this inflammatory, traumatic, surgical, or symptomatic fever, as it was formerly called, means that the patient has been subjected to the poisonous influence of putrefactive or suppurative germs.

We now know why it is that certain cases of suppuration are not circumscribed but diffused, so that the pus dissects up the fascias and muscles and destroys with great rapidity the cellular tissue. This form of suppuration is due to a particular form of bacteria called the pus-forming "chain-coccus." Circumscribed abscesses, however, are due to one or more of the other pus-causing microörganisms.

How much more intelligent is this explanation than the old one that diffuse abscesses depended upon some curious characteristic of the patient. It is a satisfaction to know that the two forms of abscess differ because they are the result of inoculation with different germs. It is practically a fact that wherever there is found a diffuse abscess there will be discovered the streptococcus pyogenes, which is the name of the chain-coccus above mentioned.

So also is it easy now to understand the formation of what the old surgeons called "cold abscess," and to account for the difference in appearance of its puriform secretion from the pus of acute abscess. Careful search in the fluid coming from such cold abscesses reveals the presence of the bacillus of tuberculosis and proves that a

cold abscess is not a true abscess, but a local lesion of tubercular infection. Easy is it now to understand the similarity between the "cold abcess" of the cervical region and the "cold abscess" of the lung in a phthisical patient. Both of them are, in fact, simply the result of invasion of the tissues with the ubiquitous tubercle bacillus; and are not due to pus-forming bacteria.

Formerly it was common to speak of the scrofulous diathesis, and attempts were made to describe the characteristic appearance of the skin and hair pertaining to persons supposed to be of scrofulous tendencies. The attempt was unsuccessful and unsatisfactory. The reason is now clear because it is known that the brunette or blonde, old or young, may become infected with the tubercle bacillus. Since the condition depends upon whether one or other becomes infected with the ever present bacillus of tubercle, it is evident that there can be no distinctive diathesis.

It is more than probable that the cutaneous disease so long described as lupus vulgaris is simply a tubercular condition of the skin, and not a special disease of unknown causation.

The metastatic abscesses of pyæmia are clearly explained when the surgeon remembers that they are simply due to a softened blood clot, containing pus-forming germs, being carried through the circulation and lodged in some of the small capillaries.

A patient suffering with numerous boils upon his skin has often been a puzzle to his physician, who has in vain attempted to find some cause for the trouble in his general health alone. Had he known that every boil owed its origin to pus bacteria which had infected a sweat gland or hair follicle, the treatment would probably have been more efficacious. The suppuration is due to pus-germs, either lodged upon the surface of the skin from the exterior, or deposited from the current of blood by which they have been carried to the spot.

I have not taken time to go into a discussion of the methods by which the relationship of micro-organisms to surgical affections has been established; but the absolute necessity for every surgeon to be fully alive to the inestimable value of aseptic and antiseptic surgery had led me to make the foregoing statements as a sort of résumé of the relation of the germ theory of disease to surgical practice. It is clearly the duty of every man who attempts to practice surgery to prevent, by every means in his power, the access of germs, whether of suppuration, putrefaction, erysipelas, tubercle, tetanus or any other disease to the wounds or body of a patient. This as we all know, can be done by absolute bacteriological cleanliness. It is best, however, not to rely solely upon absolute cleanliness, which is almost unattainable; but to secure further protection by the use of antiseptic solutions. I am fully of the opinion that chemical antiseptics would be needless, if absolute freedom from germs was easily obtained. When I know that even such an enthusiast as I, myself, is continually liable to forget or neglect some step in this direction, I feel that the additional security of chemical antiseptics is of great value. It is difficult to convince the majority of physicians, and even ourselves, that to touch during an operation a finger to a door knob, to an assistant's clothing, or to one's own body may be to vitiate the entire operation by introducing one or two microbic germs into the wound.

An illustration of how carefully the various steps of an operation should be guarded is afforded by the appended rules, which I have adopted at the Woman's Hospital of Philadelphia for the guidance of assistants and nurses. If such rules were taught every medical student and every physician entering practice as earnestly as the paragraphs of the catechism are taught the Sunday School pupil (and they certainly ought to be so taught) the occurrence of suppuration, hectic fever, septicæmia, pyæmia and surgical erysipelas would be practically unknown. Death then would seldom occur after surgical operations except from hæmorrhage, shock or exhaustion.

With this feeble plea, Mr. President and Members of the Society, I hope to create a realization of the necessity for knowledge and interest in the direction of bacteriology, for this is the foundation of Modern Surgery. There is, unfortunately, a good deal of abdominal work done under the name of antiseptic and aseptic surgery, because the simplest facts of bacteriology are unknown to the operator. I have taken the liberty of bringing here a number of culture tubes containing beautiful specimens of some of the more common and interesting bacteria. The slimy masses seen on the surface of the jelly, contained in the tubes, are many millions of individual plants, which have aggregated themselves in various forms, as they have been developed as the progeny of the parent cells planted in the jelly as a nutrient medium or soil.

RULES TO BE OBSERVED IN OPERATIONS IN DR. ROBERTS' SURGICAL CLINIC OF THE WOMAN'S HOSPITAL OF PHILADELPHIA.

After wounds or operations, high temperature usually, and suppuration always, is due to blood poisoning, which is caused by infection with vegetable parasites called bacteria. These parasites ordinarily gain access to the wound from the skin of the patient, the finger nails or hand of the operator or his assistants, the ligatures, sutures or dressings.

Suppuration and high temperature should not occur after operation wounds, if suppuration has not existed previously. Bacteria exists almost everywhere as invisible particles in the dust; hence, everything that touches or comes into even momentary contact with the wound must be germ-free; technically called "sterile." A sterilized condition of the operator, the assistant, the wound, instruments, etc., is obtained by removing all bacteria by

means of absolute surgical cleanliness (asepsis,) and by the use of those chemical agents which destroy the bacteria not removed by cleanliness itself (antisepsis). Surgical cleanliness differs from the housewife's idea of cleanliness in that its details seem frivolous, because it aims at the removal of microscopic particles. Stains such as housewives abhor, if germ-free, are not objected to in surgery. The hands and arms, and especially the finger nails of the surgeon and assistants and nurses, should be well scrubbed with hot water and soap by means of a nail brush immediately before the operation. The patient's body about the site of the operation should be similarly scrubbed with a brush and cleanly shaven. Subsequently the hands of the operator, assistants and nurses, and the field of operation, should be immersed in, or thoroughly washed with, corrosive sublimate solution (1-1000, or 1-2000). Finger rings, bracelets, bangles, cuffs worn by the surgeon, assistants or nurses, must be removed before the cleansing is begun, and the clothing covered by a clean white apron large enough to extend from neck to ankles and provided with sleeves.

The instruments should be similarly scrubbed with hot water and soap and all particles of blood and pus from any previous operation removed from the joints. After this they should be immersed for at least fifteen minutes in a solution of betanaphthol (1-2500), which must be sufficiently deep to cover every portion of the instruments. After cleansing the instruments with soap and water, baking in a temperature a little above the boiling point is the best sterilizer. During the operation the sterilized instruments should be kept in a betanaphthol solution and returned to it when the operator is not using them.

Sponges should be kept in a betanaphthol solution (or a corrosive sublimate solution) during the operation. After the blood from the wound has been sponged away, they should be put in another basin containing an antiseptic solution and must be thoroughly cleansed and sterilized anew before being used again. The antiseptic sutures and ligatures should be similarly soaked in betanaphthol solution during the progress of the operation.

No one should touch the wound but the operator and his first assistant. No one should touch the sponges but the operator, his first assistant, and the nurse having charge of them. No one should touch the already prepared ligatures or instruments except the surgeon and his first and second assistant. None but those assigned to the work are expected to handle instruments, sponges, dressings, etc., during the operation.

When any one taking part in the operation touches an object not sterilized, such as a table, a tray, or the ether towel, he should not be allowed to touch the instruments, the dressings, or the ligatures until his hands have been again sterilized. It is important that the hands of the surgeon, his assistants and nurses should not touch any part of his own or the patient's body, because infection may be carried to the wound. Rubbing the beard or head, or wiping the nose, requires immediate disinfection of the hands to be practiced.

The trailing ends of ligatures and sutures should never be allowed to touch an assistant's or surgeon's dress, or to drag upon the operating table because contact may occasionally, though not always, pick up bacteria, which may cause suppuration in the wound.

Instruments that fall upon the floor should not be again used until thoroughly disinfected. The clothing of the patient in the vicinity of the part to be operated upon, and the blankets and sheets used to keep him warm should be covered with dry sublimate towels, and all dressings should be kept safe from infection by being stored in glass jars or wrapped in dry sublimate towels.

[1] In abdominal operations it is usually not necessary, and may be unwise, to use the ordinary chemical antiseptic solutions because of their irritant qualities. When used in the abdominal and pelvic cavities such solutions must be very weak; ordinarily, water rendered sterile by boiling just before the operation, is the proper fluid for sponges, irrigation and instruments. The precautions as to cleansing the area of operations externally, and as to instruments, must be the same as in other operative procedures.

ORIGINAL ARTICLES.

THE PREVENTION OF THE SHORT LEG OF HIP DISEASE.

Read before the American Orthopædic Association, at Boston, Mass., September 18, 1889.

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A short leg is what is commonly dreaded as the result of hip disease. The shortening is not, however, as a rule, due to the shortening of the bones. What produces the short leg of hip disease is an immobilization of the joint which prevents the reduction of flexion of the thigh, or adduction of the thigh; or which, as too often happens, prevents the reduction of both flexion and adduction. If, for instance, the patient stands with the thigh considerably adducted, we will say 22.5 degrees, and fixed at that angle, the limb cannot be made vertical without elevation of that side of the pelvis, with of course a drawing upward of the heel and an inevitable appearance of shortening; and if the thigh is flexed, for example 45 degrees, and fixed at that angle, the limb cannot be made vertical without an inclination forward, which gives an appearance of shortening to the whole figure. Thus we see, that when the patient stands, adduction means "apparent shortening." The same is true of flexion. And when we direct our attention to the deformity which attends the patient when he walks, we see that the affected side dips at every step, and that when the limb comes into a vertical position, as it does at the critical moment when it is called upon to support the weight of the body, the pelvis rocks forward or laterally, or it may be in both directions at every step; and we have the characteristic gait of hip disease.

If, on the other hand, the thigh is immovable on the pelvis in a good position, neither adducted nor flexed, when the patient stands, the limb is vertical and the pelvis is level in all directions; and when the patient walks, the pelvis without any lateral tilting, rocks to and fro with a moderate motion, enough to allow the limb to swing backward and forward, by virtue of the mobility of the vertebral joints and the hip joint of the unaffected side, in the arc appropriate for locomotion in a comparatively easy and graceful way. Walking thus performed, is attended by no dipping of the affected side, and with no shortening except what may come from shortening of the bones or "real shortening."

How to secure this good position of the limb in a hip joint anchylosed by disease, is a question of great importance, second only to the question,

How can we promote resolution of the inflammation? I believe a good ultimate position of the limb can be obtained by inducing the patient to use the affected limb as much as possible in walking, of course protected from concussion by the hip crutch.

I do not mean to say that traction is useless as an agent for overcoming deformity; it will diminish extreme deformity with absolute certainty whether applied with the weight and pulley or rack and pinion; but it is less effective when the deformity is only moderate or slight. Applied, for instance, to an extreme case of flexion, it will produce extension. Indeed, traction, a few years ago, was universally called extension. But in proportion as the flexion is reduced, the power of traction to further reduce the deformity rapidly diminishes, because it is evident that a given power loses its ability to overcome resistance at the angle, as the angle becomes more obtuse. If, for instance, we would straighten a crooked nail we may, if the nail is very much bent, say at an angle of 90°, reduce the angle by traction: but as the angle becomes more and more obtuse, the power of traction to accomplish our object lessens, and finally disappears.

This consideration is one of those which lead me to discredit traction as a means of reducing deformity. Another, is the fact, that although traction may in skilful hands overcome even slight degrees of deformity, it is only by assiduous attention and a nice adjustment of the direction in which the force is applied that this may be done. The correct position of the limb, thus brought about, is maintained while the patient is under special supervision and restraint; but when they are relaxed, the causes, whatever they may be, which produce the deviation, resume their influence. And this leads to the inquiry, What are the causes which produce the customary deformity of hip disease; what flexes and adducts the limb?

This question is quite distinct from the question, What prevents motion? We know that motion is prevented, first, by reflex contraction of the muscles, and afterward by anchylosis; but what determines the position of the limb through the months and years when muscular action holds it fixed; what forbids a good position and inclines toward adduction and flexion? If we can discover the forces which cause the limb to err, we may perhaps remove or thwart them. It has been said that effusion determines the direction of the limb, which takes that position in which the capsule can best accommodate the volume of fluid. Migration of the acetabulum and dislocation of the femoral head, have also been cited as controlling forces. Abduction has been thought to depend on spasm of the gluteal muscles followed by their paralysis, which allows their opposing muscles to produce adduction. Atrophy and attrition of the head and acetabulum have been thought to have some effect in deciding the character of the deformity. It has also been said that the limb takes that position in which an imaginary painful spot or area on the head of the femur is furthest removed from the depth of the acetabulum, where it would receive pressure from muscular action.

In some stages, and in certain cases, each of these modes of accounting for the chosen position of the limb may, or may not, be correct; but what we want, is to recognize some cause, general in its application, and independent of such pathological conditions as have been cited, which are more or less transient and difficult to demonstrate in bone, muscle, nerve, or effused fluid. A more widely applicable theory is that which says the position is generally the attitude of minimum suffering; but pain is not always present, indeed, as a rule, it is present but a small portion of the time during which the limb is held in its selected position. Can we not find a cause which is in force in all the periods of the affection, the painless as well as the painful?

It has been said, and wisely, that the position is due to efforts made by the child and nature to secure fixation, and that the position assumed is that in which immobilization by nature reaches its maximum. This is a good explanation, and applicable to every case in all of its stages; but I do not think these words quite cover the whole ground. I would add to them a line recognizing the influence exerted on the direction of the limb by the patient's habitual attitudes and positions.

Before accepting this addition, however, it will be necessary for us to accustom ourselves to recognize the fact that the fixation or immobilization created by reflex muscular action is very far from being absolute immobility. This view is in accord with the ordinary events of practice. Cases in which fixedness is inconstant are matters of daily observation. For instance, a joint at the first moment of examination is without motion, but a few moments of delay and skilful manipulation reveal slight motion. Or, at one examination, the limb is in a position, adducted we will say, at a certain angle, which is made a matter of record, and at the next examination, a few hours or days later, the angle is widely increased or diminished. Or a patient with marked deformity is put to bed with a weight and pulley, or is treated by traction with the hip-splint, and the deformity is greatly mitigated in a few hours. In all these cases, reflex muscular action is in force, and yet it does not prohibit changes in the direction of the limb. The condition resembles that found in patients affected with a certain kind of paralysis, whose joints have been compared to a leaden pipe which retains its shape with a very positive degree of fixedness, but which can be bent by the application of a suitable degree of force.

In view of this mobility of the joint, fixed by reflex muscular action, I believe that the position assumed by the limb is determined by the patient's efforts, both voluntary and reflex, to place the limb where its fixation will be liable to the least disturbance, and where it will afford him the most convenience in his ordinary attitudes and movements.

Before considering how to avert deformity it is in order to review the typical positions of the limb in hip disease. They seem to be three in number, and arranged chronologically as follows: 1. Abduction, which is produced early in the disease, when the patient seeks to favor the limb when he stands by putting his weight on the sound limb. He assumes the attitude which follows the military order, "at rest," in which the limb is abducted with a descent of the pelvis on that side and apparent lengthening. Later in the progress of the disease, we have, 2. Adduction and flexion, caused by the patient's efforts to withdraw the affected limb from undue contact with the ground, and to make the disabled member as little an impediment as possible, while the chief work of progression is done by the sound limb. The natural rhythm of the gait is broken, the sound foot being on the ground longer than the other, and the affected limb is drawn up out of the way, when the foot is raised from the ground, by an elevation of the pelvis on that side, with of course, adduction and flexion of the thigh and apparent shortening. Finally, in the neglected and bed-ridden patient, we have, 3. Extreme flexion of the knee and thigh, and extreme adduction of the thigh, obviously the position in which the patient is most comfortable, and the joint most free from disturbance.

These changes, taking place in a typical and uninterrupted case, but illustrate the mobility of the immobilization, so to speak, which characterizes hip disease. In passing, would it not be well to agree to call this form of immobilization, "fixation," a term the status of which is not well established, leaving the longer word to be applied to absolute immobility, such as accompanies anchylosis or bony union after fracture? We could also use the term fixation to indicate what we produce in the hip-joint by traction, which is not absolute immobility, but enough immobilization to aid the natural efforts to keep the joint still and promote resolution, and yet not enough to stand in the way of desirable changes in the position of the limb.

To return to methods of averting deformity, the first position, that of abduction, seldom calls for attention in practice. It would, in some cases, be fortunate if slight abduction could be maintained as the ultimate position, because the apparent lengthening thus secured might happily compensate for whatever real shortening is entailed by the destruction or retarded growth of the bone. The third position, extreme flexion and adduction, cannot occur with the use of the hip-splint; and as we all, I presume, adhere to treatment by this apparatus, the practical question before us concerns only the prevention of the second position, that in which the thigh is seriously but not extremely flexed and adducted. How can we then, by the use of the hip-splint, keep the limb slightly flexed and free from adduction during the many months which usually intervene between the first appearance of deformity and the occurrence of anchylosis?

To recall what we have said about the cause of this deformity, it is the result of the patient's efforts to keep the affected limb off the ground while the well limb does most of the work of progression. If then, we can induce the patient to adopt a gait in which the two limbs are used equally, the cause of the deformity would vanish. The affected limb would then reach for the ground at every step when its turn came, and that would mean a descent of the pelvis and the abolition of adduction, and this would be unattended with violence to the affected joint, because the weight of the body comes on the ischiatic tuberosity resting on the perineal strap, and not on the heel. The first, or an occasional effort of this kind, would not be likely to produce any effect, but if the effort is made habitual or a matter of systematic drill, the adduction of the limb will be gently and gradually corrected, because the patient, consciously or otherwise, will incline the limb towards abduction, so that he can more readily conform to the mode of walking prescribed for him. Undue flexion is subject to similar corrective procedures. And if the naturally rhythmical action of the limbs is restored and becomes habitual, the limb fixed in a good position by reflex muscular action, becomes immobilized by anchylosis, and the patient recovers with the minimum of deformity and locomotor disability.

It may be said, by the way, that the rhythm of the human gait is a subject which has not received the attention to which it is entitled. When natural, it is very simple, the time being divided equally between the two feet; but its very simplicity makes a slight deviation very noticeable, as in the lameness of incipient hip disease in a child, in whom the ordinary motions of the joint are as yet unlimited, and whose lameness is entirely due to the fact that he violates rhythm by spending more time on the sound than on the affected limb. He accents the blow given to the ground by the well foot, which hastens to relieve the affected limb of the weight of the body. It is a point of practical importance that many people who are lame, add to their lameness by neglecting to keep correct time with their feet. Any of us can appear lame by simply giving more time to one foot than to the other, a matter of easy and immediate demonstration; and one who

is really lame can lessen the appearance of being so by simply giving natural rhythm to the action of the feet.

I have been led to the opinions[1] presented in this paper by pondering the question, Why do patients similarly affected, and treated exactly alike, recover with such different degrees of deformity? A young girl, for instance, was in the third stage, in which she nearly lost her life, before treatment was begun. She has recovered with no adduction, and almost no flexion; so that although there is real shortening of nearly two inches, there is very little lameness. I attribute this good position to the fact that her mother was very anxious about her only daughter, and was always with her, so that every step the child took with the hip splint was taken under the necessity of appearing as well as she could. Her steps were equally timed, and the affected limb became anchylosed in a useful position because it had to do, so far as was possible, half the work of locomotion. I also treated a boy who recovered from the disease, in a more moderate although purulent form; but he limps about most awkwardly with 20 degrees of adduction, and 50 degrees of flexion. I explain his bad position by the fact that the mother, one of the best of women, was busy out of the house, every day, and nearly all day, necessarily leaving at home and very much to their own devices, her family of four boys. As the patient was most of the time in excellent general health and very ambitious, he vied with his brothers in all their games, and developed his well limb enormously at the expense of the affected one, which was elevated and adducted to keep it out of the way. In another case the patient, who recovered after long-continued purulent discharges, was a girl endowed with uncommon beauty; and although she was by no means docile, and under very little restraint at home, her vanity led her to try always to appear at the best advantage, and thanks to her careful gait and studied attempts to be graceful, she now walks with very little lameness, with flexion not more than 10 degrees, adduction *nil*, and more than two inches of real shortening.

Another child, whose treatment as a hospital out-patient was finally suspended for neglect, will probably recover with the limb adducted forty-five degrees. A year before her final discharge she was made an in-patient and the deformity was entirely reduced by recumbency and the weight and pulley for seven weeks; but soon after returning to her unfortunate home, where a large family and poverty make even ordinary parental care impossible, the deformity recurred and will doubtless be permanent.

These are the more striking examples selected from many cases, the study of which has led me to the practical conclusions above expressed. I believe that for years I made a mistake by encouraging patients, protected by the hip splint, to take part in the rough occupations of healthy children. One result was frequent chafing by the perineal straps, which at once destroys correct rhythm, because it is impossible for the patient to divide his weight equally between the well foot on the one side, and the excoriated perineum on the other. It is my practice now to advise moderation in exercise, and especial attention to the manner of walking. I insist on the patient's keeping time in his steps so far as practicable, and lead him to adopt and maintain a proud bearing, keeping his head high and behind the vertical of the centre of gravity. A girl is told to practice deportment before the looking glass, and a boy is advised to organize a juvenile military company, and to take command of it himself. The parents are informed of the importance of encouraging the child to adopt deliberate and graceful movements on all occasions. Since I have changed my practice in this regard, there has been an improvement in results, and I no longer am anxious as to the ultimate position except in those cases in which the patient is intractable, and the domestic management at fault.

It may be well to mention that, as in this method of regulating the position of the limb no account is made of the abductive power of the traction by the hip splint, the perineal strap on the sound side is dispensed with. A single strap is more convenient, and has proved sufficient both as an ischiatic crutch and an agent for making counter traction when the rack and pinion are used.

Summary.—The deformities of hip disease are caused by the patient's efforts to so place the limb that it shall be the least disturbed by, and afford him the most convenience in, his customary attitudes and movements. They are, 1. Abduction; 2, Adduction and flexion; and 3. Extreme adduction and flexion. The second position is practically by far the most important, and is the only one considered in this paper. It is caused by the patient's elevating that side of the pelvis in order to take the limb off the ground, and to keep the affected limb out of the way of the well one, which is on the ground a longer time than the affected limb, and does most of the work of progression. The limb is maintained in the chosen position by reflex muscular contraction, which does not immobilize the joint, but fixes it in such a manner that changes in its position are readily made by the application of gentle but persistent force. It is proposed therefore, to induce the patient, wearing the hip splint, which protects the joint from the violence of walking, to divide the time on the ground equally between the two feet, or rather between the foot of the sound side and

[1] Medical Record, May 21, 1887, p. 586; St. Louis Courier of Medicine, May, 1881, p. 372.

the ischiatic crutch on the affected side, with the expectation that adduction and flexion will be wholly or in part reduced, when the affected limb makes repeated efforts to reach the ground and do its share in locomotion. It is believed that the patient can be induced by precept and drill to adopt this manner of locomotion with the result indicated, a belief which is sustained by the observation that patients led by accident to walk in this way, have recovered with a good position of the limb, and by the results of the adoption in practice of this method of preventing deformity.

4 East 25th St., Madison Square, New York City.

MALIGNANT SMALL-POX; A FORM HITHERTO FATAL.

BY H. RUSSELL, M.D.,
OF SUPERIOR, WIS.
FORMERLY FIRST ASS'T SURGEON 38TH WISCONSIN VOLUNTEERS.

I take the liberty of sending you a report of some cases of above form of small-pox for publication in your valuable journal, in order to expose to the notice of the medical profession a pretty accurate description thereof and its treatment, so that the disease may be diagnosed, if possible, at time of physician's first visit and thereby not permitted to spread, which state of matters occurred after the first case of it, which I saw in vicinity of Westfield, Marquette Co., Wisconsin, in the winter of 1872–73, as, although prior thereto, I had seen many cases of variola and varioloid, I totally failed to discern the least resemblance to last diseases.

My first case was that of a young man, named James Brown, whom I first visited on the 18th of January, 1873, and found in the usual febrile state, precursory to an eruptive disease, with an eruption just appearing on the forehead, which I considered as having been that of scarlatina and announced it as such to his parents, but on the following day the patches were larger than those of scarlatina, and, after having looked over the various exanthema in Aitken's "Practice," I concluded that it was a case of hybrid, described therein, and watched its progress carefully for a few days, when I told them that I did not know the name of the disease that affected their son and advised counsel, which was not obtained, and on the following Monday another physician took charge of the case and diagnosed it as black measles, and as no one was afraid of measles, many visited the patient; hence, in about two weeks thereafter there were many affected by variola, varioloid, and referred to malignant form, and, knowing that the treatment of the first two is simple, and that the character of the pustules, etc., attending them is easily detectible and recognizable by physicians and others who have, previously, seen such cases, I shall, in the following, try to describe the appearance of the pustules in said form, its history and the treatment which I found to be of service in my last case, and the only one in which I tried it to any amount.

The pustules, if such they may be termed, in this almost hitherto, nondescript, are not cone-shaped as in variola, and varioloid, but are umbilicated in the centres, of about the size of an ordinary cowpock, are red around the bases and marginally contain a clear fluid which scarcely ever becomes opaque in the least, are mostly confined to the face and extremities, whilst the whole trunk, as far down as the umbilicus, is of a bright red color, and in no case need the attending physician expect such a patient to live more than ten or ten and one-half days after the first appearance of the eruption by using ordinary treatment; such, at least, having been my experience; but in my last case, that of a child named Hannah Smith, aged 9 years, I used tincture of iodine, of which I gave her eight drops in syrup every three hours, and am happy to state that she recovered as readily as if she had merely been affected with measles, whereas her brother and sister had succumbed to the same fatal form, the former not having taken any iodine and been treated by another physician, and the latter only having used it for the period of three or four days prior to death.

In regard to the use of iodine in this form of small-pox, I would say that I got the idea from having seen Prof. Daniel Brainard, of Chicago, successfully use it, hypodermically, on chickens, in the presence of his class for the bite of the rattlesnake, and having used in my former cases, of which I had thirteen during said winter, the different acids, etc., and hydrate of chloral (said to have been used beneficially in the German army for small pox), without the least success, I happened to think of the iodine, and presumed that, as it had acted so well against rattlesnake poison, it might, possibly, have a good effect on small-pox poison, and hence, used it with the above happy result, and it is my opinion, that if I had used it in my former cases I would have saved all of their lives except those of two, who, during the continuance of the disease, were affected by severe intestinal hæmorrhage.

In regard to the terrible affection being a new one, I have very good reason to believe that it was in the north of Ireland about seventy-nine years since, and in other parts of Europe about one hundred and sixty-nine years ago, and wonder why a very accurate description of it is not to be found to day in every standard work on the practice of medicine, whereas it is not in any of them unless in one lately published by that talented, time-honored veteran, Prof. N. S. Davis, of Chicago, and is by all odds, more fatal than any and all of the pustular or exanthematous

diseases. The only cases of it of which I have read a description, were those of two published by him in an issue of THE JOURNAL in 1872; his description was very fine, and he described them under the heading of "new diseases," and stated that the first terminated fatally from intestinal hæmorrhage and that he sent the second to the pest-house and did not know the result thereof.

The *New York Sun*, in 1873, published a history of the disease as having been known in the countries referred to above, and at said periods, and I also obtained from an old reliable gentleman, named James Hamilton, formerly of County Down, Ireland, a verbal statement in which he said that he recollected, when a "wee boy" that such a form of small-pox was in the north of Ireland at the same time as stated by the *Sun*, and that all cases of it were invariably fatal. I might also say that in all of my fourteen cases none had been successfully vaccinated and would, therefore, respectfully suggest that stringent, general, State and local enactments be immediately passed for the very charitable and life-saving purpose of carrying out the entire vaccination of all parties not vaccinated as, owing to the small number that were exposed to my first case of malignant small-pox with the result of thirteen having contracted same fatal form and sixty-four been affected with variola and varioloid during the continuance of the disease in said winter, it is my humble opinion that to-day there are not less than ten millions of people in the United States who are liable at any time to contract said fatal form. I might, also, say that in a newspaper in 1873, I read an account of a case of it having occurred in Indiana with the same result as in my first case but whether it was published in a medical journal or not I do not know. That said disease might, with propriety, be called black small-pox, especially in the fatal cases, as in each and all of those which I treated, about the second day prior to death the face and surface generally began to assume a dark color, which continued to become more so gradually until the patient for hours before death appeared almost as black as a negro, and that in each of my fatal cases each doomed patient several hours before death, realized that he or she was about to die and told relatives the manner in which they desired their property to be divided, whilst at the same time I could not yet infer from the character of the pulse nor respiration that my patient was commencing to fail.

NOT A BAD IDEA.—A. Oakey Hall, one of the ex-mayors of New York, in one of his London contributions to the *N. Y. Press*, suggests a statue of Dr. Valentine Mott, to be erected in the Central Park. In the metropolitan city, however, all memorials are of rather tardy growth.

A CASE OF ACUTE INTESTINAL OBSTRUCTION.

Read before the Kings County Medical Association, March 10, 1891.

BY F. C. RAYNOR, M.D.,
OF BROOKLYN, N. Y.

The following history of a case, which I present for discussion, is of interest, *first*, from the difficulty in making a diagnosis; *secondly*, from the manner in which the obstruction was produced; *thirdly*, from the amount of intestine occluded.

The patient, a colored woman, aged 57, weighing about 175 lbs, single, and a cook by occupation, was taken, two days before I was called, with a sudden and severe pain while ascending the stairs, and it was some little time before she was able to proceed, and then with much difficulty she reached her room. Later she had occasional colicky pains, and vomited some biliary matter. As the bowels had not moved for several days, she was given an enema, which only brought away a few hard fæcal masses. For her pain she had been using hot applications. These symptoms continuing, I was sent for. On my first visit, May 21, 1889, I found her complaining as above, with a normal temperature, and a fairly strong pulse of 70. The abdomen was slightly distended, and she had some general soreness, but there was no marked tenderness, and on firm pressure I could detect no sensitive spot. There was no local tumefaction that I could detect, and the external abdominal rings were normal. A careful vaginal and rectal examination was made with a negative result. As she had been subject to what she called "bilious attacks," and further, being under the impression that she had worms, had taken at intervals for years past about all the different vermifuges on the market, it was my opinion she was suffering from some digestive derangement due to improper eating and overmedication. Accordingly, I prescribed a sedative and a diet of milk and Vichy. On the 22d the temperature was normal, pulse 74. The stomach rejected all food taken, and she frequently vomited biliary matter. I continued the sedative and prescribed a cathartic. 23d, No effect from the cathartic, vomiting continues, some hiccough, temperature 97°, pulse 104 and weak. Continued sedative and ordered beef peptonoids and brandy, per rectum. 24th, Patient weaker, vomiting persists, and for the first time is stercoraceous; has passed flatus twice. I then knew I had some form of intestinal obstruction to deal with, but what? At this visit the temperature was 98°, pulse 108. Treatment continued. 25th, Has not vomited in twenty-four hours, and bowels moved freely, passing formed and semi-liquid stools with considerable flatus, slept well during the night, has no pain, and feeling stronger. Temperature 99°, pulse 100. I then was of the

opinion that the obstruction was a volvulus, and that it had been spontaneously relieved, and I felt more hopeful of the case. 26th, General condition somewhat improved; retains food and stimulants. 27th, Still retains food and stimulants, but is weaker. At my evening visit I found her in collapse; she was suffering no pain, was somewhat restless, but her mind was clear. She did not respond to treatment and died at 5 o'clock A.M. on the 28th. A partial autopsy was permitted, and revealed the following: The abdominal walls were two inches thick; no fluid in the peritoneal cavity; peritoneum normal; omentum containing a large amount of fat. On the right side was an incipient hernia, which barely entered the inguinal canal. The gut at a point opposite to the mesentery was so firmly adherent to the margin of the internal ring that it could not be separated. It was twisted on itself, and gangrenous where twisted to the extent of about one square inch. It was not constricted in the ring, and when untwisted, the canal was pervious. The mesentery of the adherent gut formed a constricting band which, extending across to the last lumbar vertebra, passed one inch to the left side of the caput coli, and occluded eleven feet of ileum. The lower half of the large intestine was empty; the upper contained solid fæces; stomach and small intestine above the constriction contained fluid; other organs not examined.

Let us review briefly, on the authority of Erichsen, the more usual causes of acute intestinal obstruction with their diagnostic symptoms. 1. We may have internal strangulation from a portion of the gut slipping through an aperture in the mesentery or omentum, forming the so-called internal hernia; or a portion of the intestine may be constricted by becoming entangled round a band passing from one part of the abdominal cavity to another; these bands may be from old peritonitic adhesions, from the vermiform appendix, or a diverticulum from the ileum, the free end of which has become attached to some part of the abdominal wall. 2. Volvulus. 3. Stricture which, gradually closing, becomes suddenly obstructed. 4. Foreign bodies. 5. Inflammatory affections. 6. Intussusception. As there was no history to suggest the third, fourth and fifth causes, we can exclude them and confine ourselves to the first, second and sixth. The symptoms common to all are, severe pain coming on suddenly, followed by early collapse; the pulse is quickened, temperature at first slightly elevated, but soon becoming subnormal; acute abdominal pain fixed in one spot with paroxysmal exacerbations; early severe vomiting, becoming stercoraceous speedily, if the obstruction is in the small intestine, or after several days if the large intestine is occluded; complete constipation; marked abdominal distension.

In thin subjects coils of intestine and peristalsis may be observed through the abdominal walls. In volvulus the twist is generally in the sigmoid flexure, or the descending colon, and the pain will be referred to that region. Peristalsis is said to be greatest in this variety of obstruction. In intussusception, in addition to the foregoing there is, at the seat of the obstruction, a sausage-shaped tumor, doughy to the feel, which becomes tense on manipulation, owing to the peristaltic contraction of the gut, which is thereby excited. It is tender, and the contractions are accompanied by griping pains. There may be also tenesmus, and a discharge of bloody mucus. The other authorities that I have consulted agree substantially with the above. Comparing this description with my case, which was both a volvulus of the small intestine and a constricting band—for I do not regard the hernia *per se*, a cause of the obstruction—we note an absence of any fixed pain, great abdominal distension, or any local tumefaction or point of tenderness, and although the obstruction was high up in the ileum, stercoraceous vomiting did not occur until the fifth day. The pulse and temperature were also at variance with the description given. But the most misleading symptoms were the passing of fæces and flatus, in considerable quantities, on the sixth day, together with an improvement in the general condition, making it appear that the obstruction had been removed. I can only account for it by assuming that the discharge came entirely from the large intestine, and was occasioned by a local peristalsis.

On reviewing the case I am of the opinion that the hernia had been a long time adherent, and occasioned the symptoms which she attributed to worms, and the obstruction was caused by the intestine becoming entangled around the mesenteric band, and which, twisting the gut on itself, produced the volvulus. In regard to the propriety of surgical interference in the treatment of the case, it seems to me that the symptoms at first did not warrant an explorative laparotomy, and when dangerous symptoms did appear they were apparently relieved spontaneously within twenty-four hours, and from the conditions found at the autopsy, it is questionable if an operation could have been successfully performed.

OVARIOTOMY AS A PROPHYLAXIS AND CURE FOR INSANITY.

BY ROBERT A. KITTO, M.D.,
OF RACINE, WIS.

I desire to present to the readers of THE JOURNAL a very interesting case of pseudo-insanity which I recently cured by removing both ovaries with their tubes, bringing about a complete restoration of a mind which had been under a cloud for thirteen years, and which had been pronounced incurable insanity.

Miss Ada M., Racine, Wis., age 25, brunette, full habit, fair health. When she was thirteen years old she had a severe attack of scarlet fever which left her in a very unsound condition of mind. From the age of 14 she began to show signs of unsoundness of mind, which grew rapidly worse until she was 18, when she became so violent and unmanageable that her parents were obliged to apply for a medical commission to examine into her mental condition with a view of sending her to an asylum, which was accordingly done. She was committed to Oshkosh (Wis.) Asylum in 1887. There she remained under regular treatment for a period of eight months, when she was discharged and sent home. She was, however, by no means cured, as she almost immediately began to show signs of a return of her former trouble, and after a space of two years she was again committed to the same asylum for treatment, where she remained for a space of one year; she was again returned home, but remained in a semi-sane condition, being not violent, but so much deranged that it was found necessary to confine her to the house. She would often escape into the street in almost a nude condition; she would scream, dance, laugh and cry just as the fancy took her. She complained constantly of a pain in the groin and region of the womb, she had had a constant discharge of acrid pus per vaginam. Her menses were irregular from the first of their appearance, which was at the age of 14. She would often ask her attendants if there was no help for her. She was treated by various local physicians with but little benefit for several years. She had grown old-looking and very idiotic, she had lost all self-control and was decidedly childish.

She came under my care in September, 1890. I made a careful examination and diagnosed the case as hysterical insanity and advised ovariotomy, believing that her ovaries and tubes were diseased from the symptoms. I was met by stern opposition from members of the family, also from various counseling doctors. I finally sent her to a prominent specialist in Chicago, who decided it was a hopeless case of brain disease. The unfortunate girl heard the eminent specialist pronounce her doom, and came home much depressed and grew violent and wholly uncontrollable.

It was January 4 of the present year that, after such good counsel, her parents decided to send her again, for life, to the insane asylum. I remonstrated with them, and finally persuaded them to allow me to operate and remove her ovaries, which they did. Accordingly, on February 4, I performed the operation with the above result, for which both the patient and myself have much reason to feel gratified, for she is now entirely well, mentally and physically.

The usual steps of the operation being familiar to all, I shall not take time nor space to dwell upon. The usual incision was made and the organs accordingly removed with the tubes. I found, as I had predicted, that both ovaries were in a state of chronic inflammation, also the tubes were in a state of pyosalpinx. A thimbleful of acrid pus escaped from each ovary in removing them, they having grown extensively on the bowels and surrounding pelvic tissues, which necessitated considerable tearing in order to remove them. An accident which is much dreaded by surgeons, and a most formidable one too, occurred in trying to tear the ovaries from the intestines. I accidentally tore the gut, which was followed by an escape of fæcal matter and gas. Being prepared for such an accident, I at once proceeded to close the lacerated gut, which was done by simply excising the lacerated edges and putting in the Czerny and Lembert suture of silk. The wound closed, I proceeded to complete the operation by removing the other ovary with its tube, which was done without a similar accident. When I closed the wound and applied the usual dressing, I put the patient to bed, applied hot bottles and gave a full hypodermic injection of morphia, ⅓ gr. She emerged from the chloroform in due time, and upon fully awaking she looked about her, but not with the former idiotic gaze, but a serene calmness which was remarked by the attending physicians. She said, "Dr. Kitto, have you succeeded in removing the offending appendages?" Being answered in the affirmative, she smiled and said, 'I am so happy, and I feel so different that I know I shall now remain well." While this will be read with much doubt by some, yet I must insist upon the fact that it was none the less true. She continued to improve from that day on, which is now four weeks. She has been discharged from the hospital cured mentally and physically.

I believe this case will do much to establish my theory, that hundreds of unfortunate women are to day languishing in insane asylums, who might be cured by a similar operation.

This goes to show that this and many hundreds of such cases are not insane, in the usual acceptation of the term, but are subjects of reflex irritations.

I have not further time to-day to dwell upon this important case, but will write again on this subject, touching upon diagnosis and proper selection of cases for the knife.

March 2, 1891.

GERMAN OPPOSITION TO WOMEN IN THE PRACTICE OF MEDICINE.—A discussion occurred in the German Reichstag on March 11, touching the admission of women to the liberal professions, during which Herr Schröder urged that the government should open the way, and offer opportunities, for women in the practice of medicine. The House declared itself against the petition.

MEDICAL PROGRESS.

Therapeutics and Pharmacology.

TRICHLORACETIC ACID.—EHRMANN (*L'Union Médicale*, Feb. 28, 1891) has employed this agent in the treatment of diseases of the nose and throat. Touching the affected parts with a crystal produces a white eschar, strictly localized, rapidly detached, and free from secondary irritation or inflammation. Of 140 cases, 87 required cauterizing but once, 30 were treated twice, and a few resisting cases from three to five times. A permanent cure was effected in 122 cases. Ehrmann is of the opinion that this substance is of the first rank in the treatment of diseases of the throat and nose.

Trichloracetic acid may also be employed as an astringent, according to the following formula: Iodine 15 grams, iodide of potassium 20 grams, trichloracetic acid 15 to 30 grams, glycerine 30 grams, to be applied to the affected part upon pledgets of cotton.

THE OPEN TREATMENT OF PULMONARY CAVITIES.—PROFESSOR SONNENBURG reports five cases in which he opened pulmonary cavities from the outside as a preliminary to treatment by injections of tuberculin (*Die Wirksamkeit des Koch'schen Heilmittels gegen Tuberculose. Amtliche Berichte, etc.*, p. 837, *et seq.*). His method of procedure and the immediate results of the operation in the first four cases have already been described (Supplement, January 17, 1891, p. 21). As soon as the slight reaction following the incision has subsided the injections are begun, and Sonnenburg says their effect can be followed as readily as on the skin and mucous membrane. The action of the remedy was well displayed in the case last operated on in which a cavity in the right apex was laid open. For a fortnight after the operation Koch's treatment was not employed. In strong contrast to what occurred in the other cases, the cavity remained greasy and discolored, did not become clean, and showed no tendency to heal. As soon as the injections were begun the cavity was transformed into a healthy granulating wound. In all the cases a considerable amount of necrotic lung tissue was expelled, after which the cavities began to shrink; and, with regard to three of the patients, "one can already speak of almost complete cure." The result of the combinations of the injections with incision of pulmonary cavities has been to convince Sonnenburg that the treatment presents no danger, and offers good hopes of cure. In the three successful cases the general condition has improved; there are fewer tubercle bacilli in the sputum, and the patients have gained weight. Sonnenburg adds that further experience is required before trustworthy rules can be laid down for the guidance of the practitioner in the selection of suitable cases for the surgical treatment of pulmonary cavities. Much also has still to be learnt as to the right method of using tuberculin, particularly as to individualizing the treatment. —*British Medical Journal.*

Surgery.

THE PATHOLOGY AND SURGERY OF THE APPENDIX CÆCI.—Although the Clinical Society departed from its usual course and devoted a meeting recently to an adjourned discussion on the above subject, yet it must have been felt at its close that the question had been by no means exhausted. It is one that has of late years come prominently to the front—one, too, in which both physicians and surgeons have an interest. It deals, moreover, with a class of disease of singular frequency, and of varying fatality. To discuss it adequately would require a debate much more prolonged than that which has just been assigned to it. We will therefore content ourselves here with noting some of the points raised in the course of that discussion. In the first place is to be remarked the want of unanimity upon the true nature of so-called typhlitis—a term which is, in the opinion of some, misapplied to the larger proportion of cases that are at present included under it. Although Mr. Treves has apparently gone back from his former belief as to the frequency with which the appendix shares in the production of the symptoms of typhlitis, and although, as Mr. Pearce Gould showed, the diagnosis of "appendicitis" had in some quarters been often very erroneously made, still there is no question that the pathological evidence of an independent inflammation of the body of the cæcum is as rare as the verification of an inflamed and ulcerated appendix in cases of "typhlitis" is common. Drs. Coupland and Kingston Fowler expressed this view strongly, the latter dealing with definite post-mortem facts. Mr. Treves laid some stress upon the palpation of an enlarged appendix through the rectum as serving to distinguish the cases; but he did not state whether this plan had been adopted in the ordinary cases, which recover under the guiding principles of "rest;" and it is certain that "relapsing" cases form no very large proportion of all those in which there is appendix mischief, nor, indeed, that there is more danger in a relapse than in a primary attack. On the whole, it will conduce to lucidity if we regard the appendix as the seat of the trouble in all classes of cases—those which resolve and those which lead to more or less extensive perityphlitic suppuration. Mr. Bland Sutton's comparison of the appendix to the tonsil was suggestive, but hardly essential to the argument. For although, as he showed, this structure is richly provided with lymphatic tissue, yet it is by no means certain that its inflammatory lesions are primarily

evolved and not excited by fæcal or other impacted contents. As to the results of inflammation and ulceration of this structure, the cases may be grouped under the following heads: 1. Cases where perforation occurs suddenly, leading to general peritonitis. 2. Cases where the surrounding inflammation is limited, owing to the formation of adhesions. This class may be further subdivided into (*a*) those where there is resolution of the inflamed products, with or without a liability to relapse; and (*b*) those where suppuration takes place, the ultimate issue being uncertain, the pus sometimes burrowing into the tissues outside the peritoneum in various directions, sometimes being more or less confined within a peritoneal abscess, the existence of which is a constant element of danger to life. There can be no hesitation as to the propriety of surgical intervention in these latter cases; but the fact that the progress of the suppurative inflammation is often very insidious emphasizes the need for a prompt recourse to surgery whenever possible. A highly interesting point was raised by Mr. Pearce Gould—namely: whether the diseased appendix should be removed or not. He advocated the latter course, trusting to free incision and drainage, and he was supported by Mr. Charters Symonds; whilst Mr. Sutton, in his able reply, contended that this would hardly be an advance upon the old practice, and that it would be wrong to leave behind the source of irritation. The final decision in this matter must be left to the teachings of experience. One thing at any rate may be hoped for as the result of this debate, and that is a prompter resort to surgical interference when the indications point to extension of the inflammatory process to the general peritoneum or the supervention of suppuration.—*The Lancet.*

RESULTS OF OPERATIONS UPON TUBERCULOUS LYMPHATIC GLANDS.—NOORDEN (*Beitrage Zur Klin. Chirurgie*) gives the results in 149 cases that were operated in the clinic of Tubingen. Only those cases were tabulated in which three years or more had elapsed since operation—93 cases were free from any return of the disease at periods varying from three to fourteen years. In 30 cases the disease returned, with local manifestations; 31 cases died within sixteen years of operation. In no case was there a return of the disease later than six years after operation. The writer reckons that 28 per cent. of all patients suffering from lymph adenoma die of other forms of tuberculosis. The most usual form of which is phthisis pulmonalis, and the writer recommends the early extirpation of enlarged glands, to protect the patient from a general systemic infection.

Physiology.

RECENT EXPERIMENTS ON THE CERVICAL SYMPATHETIC AND SYMPATHETIC GANGLIA.—The existence of vasomotor fibres for the iris, and certain secretory fibres for the salivary glands in the cervical sympathetic nerve is well known. Luchsinger several years ago found that the cervical sympathetic also contains secretory fibres for the glands in the muzzle of the ox. Arloing (*Archives de Physiologie*, ii, 1890, p. 1) confirms the existence of these fibres; but he finds that inhibitory secretory fibres are also present in the same nerves. Ten minutes or so after section of the vago-sympathetic nerve in the ox the muzzle of that side becomes dry. Twenty to forty days after section of the cervical sympathetic, or rather the vago-sympathetic, nerve, stimulation of it is without effect; but if pilocarpin be injected there is active secretion in the glands in both sides of the muzzle, but the secretion is more pronounced on the side on which the nerve is divided. According to Arloing, the result is not due to vasomotor effects, but is to be explained by the inhibitory influences of the inhibitory secretory fibres disappearing with the degeneration of the inhibitory nerve fibres. An increased secretion of tears and also of the secretion of the Meibomian glands occurs after section of the cervical sympathetic, and the secretion is further increased by pilocarpin. Arloing regards these glands as receiving more inhibitory than secretion-exciting fibres. Hirschmann some years ago showed that after nicotine was given to an animal the cervical sympathetic lost its effect on the pupil. Langley and Dickinson (On the Local Paralysis of Peripheral Ganglia, etc., *Proc. Roy. Soc.*, vol. xlvi, p.423) find, however, that in the rabbit stimulation of the nerve above the superior cervical ganglia causes dilatation of the pupil. What, however, constitutes the chief interest in their observations is the local action of nicotine. If a 1 per cent. solution of this drug be pencilled on the superior cervical ganglion, stimulation of the nerve below the gauglion or of the ganglion is without effect on the iris. Nicotine, however, when applied locally to the nerve above the ganglion, has no effect on the nerve. Nicotine applied locally to the ganglion prevents stimulation below the ganglion from having its usual vasamotor effect on the blood vessels of the ear, and in addition the secretory action on the salivary gland is also arrested. The authors conclude that the sympathetic fibres for the blood vessels of the ear, the fibres for the iris, and the secretory fibres for the salivary glands, end in the nerve cells of the superior cervical ganglion, and from these nerve cells fibres proceed to their regions of distribution. Similar results were obtained by experiments on the solar plexus, that is, the local application of nicotine prevented the inhibitory effect of the splanchnic nerve on the movements of the intestine and stomach. Beyond the ganglion the fibres were active. The authors conclude that the inhibitory fibres of the splanchnic for the stomach end in

the nerve cells of the cœliac ganglion, and those for the intestine in the superior mesenteric ganglion. Even when both plexuses are eliminated by the local action of nicotine, stimulation of the vagus still causes movements of the stomach and intestine, so that it is concluded that the vagus does not form connections with the nerve cells of these two plexuses. The vasomotor fibres, however, appear to end in or form connections with the nerve cells in these plexuses. In a later research (*Archives de Physiol.*, No. 1, January, 1891, p. 160) Arloing gives an account of continuation of his researches on the cervical sympathetic nerve, and in this paper he cites experiments which lead him to believe that trophic nerve fibres are also present in this nerve. The experiments were made on the ox and dog. In the muzzle of the ox marked histological changes in the papillæ and stratum granulosum follow upon section of this nerve. In the dog after section of the vago-sympathetic nerve, the humidity on the muzzle is not altered, nor does galvanic stimulation of the nerve or injection of pilocarpin increase the moisture, these results being due to the absence of glands in the more hairy part of the dog's nose, while such glands are abundant in the muzzle of the ox. After two months or so, however, there are marked changes in the nose of the dog, the skin becomes papillated and dry, while there is great hypertrophy of the corneous layer. Arloing concludes from his experiments that the cervical sympathetic nerve in the ox and dog contains tropic fibres for the glands and epithelium in the former, and for the epithelium in the latter; and that their action is independent of the vasomotor and glandular nerve fibres.—*Brit. Med. Journal.*

POWERS OF PERCEPTION OF CHILDREN.—BINET (*Revue Philosophique*, December, 1890) has made a series of very interesting observations on the powers of perception of children. He experimented upon two little sisters, and found that the first color to be recognized was invariably red. When between 1 and 2 years old they could easily recognize the entire figure drawn on paper in outline of some common object, as a man, but it was several years before they could with certainty recognize an outline drawing of some individual part—as an ear or a finger. Binet also investigated how far the ideas of children are spontaneous, and how far they are recollections of dreams, but he found it difficult to come to any conclusion. He points out that at first children always regard themselves in the third person, and he gives several interesting conversations which show that their ideas about all objects are utilitarian; for example, they look upon a knife as a thing to cut with, bread as something to be eaten, and so on.

Pathology.

THE MICROÖRGANISMS OF CANCER.—DR. SCHUTZ (*Centralbl. f. Chir.*, January 24th, 1891), whilst fully recognizing the appearances which have been described by several authors as occurring in cancer, does not, however, regard the bodies in question as living organisms, but thinks it far more probable that they are formed (in part, at least) of red blood corpuscles which, both in carcinoma and sarcoma, find their way freely into the tissues and assume various disguises, so that their origin is not easily determined. Another source of the so-called organisms depends, he asserts, on the alteration of the cells of the various tissues which take upon themselves amœboid movement, and congregate oftentimes in masses; and it is by the alteration of these masses that the so-called sporocysts are formed. So far, he is of opinion we are as far as ever from finding the true organism which produces cancer, even supposing that it exists.—*Brit. Med. Journal.*

THE BLOOD IN PNEUMONIA.—DR. KIKODZE has published in the *Bolnichnaya Gazeta* of Dr. Botkin, some interesting observations on the blood during pneumonia. He found that during the course of this disease the white corpuscles increase in number to as much as double, or even treble, what they are in healthy persons. The increase is observed in the fully mature and over-mature corpuscles rather than in the young ones. It is worthy of note that in fatal and very severe cases no increase in the white corpuscles is found. As a rule, however, the increase begins even before the physical signs of pneumonia are detected. It persists from that time onward without any great variations to the crisis, immediately after which it suddenly falls.—*Lancet.*

Hygiene.

TYPHOID BACILLUS IN DRINKING WATER. DR. FINKELNBURG (*Centralblatt für Bakteriologie und Parasitenkunde*, March 7, 1891) mentions an instance in which he examined a suspected water and found no bacilli by the ordinary method—mixing a cubic-centimetre of the water with nutrient gelatine and spreading out upon plates. By the use of his settling apparatus (described in the *Corresp-blatt des niederrhein. Vereins für öff. Ges. Pflege, Band 11*) there developed in the cultures colonies of bacteria, that appeared to be identical with Eberth's typhoid bacillus. Within a few years the writer has examined fifteen samples of water thought to contain the typhoid bacillus in which the ordinary method of examination gave negative results, but the application of the settling method demonstrated on the first trial the presence of the bacillus. He thinks the use of this method would in many instances demonstrate pathogenic organisms in waters, which are now pronounced free from contamination.

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THE FURTHER DEVELOPMENT OF THE SECTIONS.

It seems to us that the time has arrived when the question should be carefully considered by the members of the Association, as to the best method of developing the work of the Sections, of presenting that work at the annual meetings, and of preparing the same for publication.

Faithful as its officers have been, and liberal in the expenditure of money as some of the officers of Sections are, in the effort to secure a proper reporting of their proceedings, still we doubt if in any instance they have been fully satisfied with the results they sought to accomplish. The fault was certainly not with them, but in so far as there was failure it was inherent to our present method of securing and presenting, discussing and publishing our papers.

It was with no ordinary effort that the Sections, now eleven in number, were inaugurated and brought into their present working order. Thus far, probably, the present methods were the best that we could hope to secure. But now that the Sections are firmly and permanently established, it seems desirable to carefully consider to what extent and in what respects modifications may be made which may remedy existing evils, and enhance the general good. With this in view, and with no purpose to undo what has already been so well done, we desire to offer for the consideration of our members the following suggestions:

1. With reference to the preparation and presentation of papers. Practically, at the annual meetings there are three working sessions of the Sections, extra sessions not included, of about three hours each, giving at the most from ten to twelve hours for the presentation of papers. If the length of these papers be limited to twenty minutes each, and the discussion of each paper to the same length of time, not more than fifteen papers can be profitably presented in any one Section. This would give an aggregate of at least one hundred and fifty papers for publication, which, with the discussions properly reported, would fully occupy the pages devoted to the publication of "Original" matter in THE JOURNAL for the entire year.

Of a given fifteen papers in a Section at least ten could be assigned to men of known ability in token of honorable recognition. It should be accounted a matter of honor—also, if a man be assigned to the discussion of a given paper, and if each fulfill his engagement, every paper would secure appropriate consideration. Five volunteer papers could also be presented, thus giving abundant opportunity for individuals desiring to present special subjects to come before the Sections, such volunteer papers or full abstracts of the same being first submitted to a constituted board for their approval. No papers should be read simply by title and referred to the publishing committee, nor should papers be announced in the programme unless there is reasonable assurance that they will be read in the Sections. Thus the officers will have measurable control of the material to be submitted both as to its amount and quality.

2. With reference to the reporting of the proceedings. We deem this an important matter. No just estimate can be made of the work done in any given Section unless it is properly reported. We have reached the point now when such reporting is perfectly feasible. The present receipts of the treasury will safely permit the necessary expenditure. We have carefully considered the cost and find that expert medical reporters can be secured by a single contract for the full reporting of the eleven Sections, in typewritten copy, for from eight hundred to one thousand dollars per year.

An annual appropriation of one thousand dollars, which the present income of the treasury will fully warrant, will secure the full and satisfactory reporting of our entire proceedings.

3. The publication of the papers presented in the Sections. These should be referred to the careful supervision of men specially qualified for their work by reason of their familiarity with the subjects to be considered. We believe the best interests of the Association will be promoted by the selection of one member from each Section who shall be charged with the duty of preparing the papers and discussions of his Section for publication, and that suitable recognition for such services should be made, in such manner as the Association may deem advisable.

No editor-in-chief, nor supervising editor, is alone competent to this work, and once the supervision is given into the hands of those who are experts in their specialties, the "Original" department may become the crowning feature of our JOURNAL.

In the next issue we purpose to consider the question of the increase of our membership, and in that connection to suggest the propriety of appointing, at a suitable time, an able committee which shall consider these various subjects, and at a subsequent meeting, recommend to the Association such modifications of our present plans as may be deemed desirable.

LAST WINTER'S EMERGENCY IN PARIS.

The efficient measures adopted in Paris for the relief of the poor and starving, during the terrible cold of last January, command our highest admiration. The statistics, showing the number of lodgings and meals provided, have been cited with wonderment throughout Europe. For celerity of action and unstinted relief to the suffering the Municipal Council have left a record that must prove most stimulating to other cities when they shall have been brought face to face with a like trying emergency of cold and want.

Much want occurred in unexpected quarters because so many people were thrown out of employment by the extreme cold and they could not get the money wherewith to pay their rent. Many such were compelled to leave their homes and live in the streets, for a time at least. This strange emergency was met by the prompt establishment of eighty or more "brasseros" or great open fires in grates in the public places, so that many were there cheered and revived when weakened by the cold. Temporary refuges and special shelters for women were organized in art galleries and gymnasia so as to accommodate many hundreds, giving both food and sleeping places. All this was done by the authorities without hesitation or red-tape. The maximum of these lodgings taken up on any one day was 4,500. The beds consisted of a mattrass of straw and a military rug, or robe, provided by the War Department. Soup was served out morning, noon and night. As many as 24,000 soup-portions were prepared in a single day. It is calculated that the soup cost about three cents per plate. It was made of beans, peas, lentils, salt and lard, bones and fresh vegetables being exorbitantly high priced during the "cold snap." The lard was found to make a fair substitute for soup-meat. Soup of this kind was still being given out at the Paris refuges after the month of March had opened. The heartiness, catholicity of charity, and even hospitable spirit with which this proffer of relief was extended made it easy for those in want to accept of it. At first no inquiry was made of any applicant, but subsequently, when the rigor of the cold had moderated, the personal descriptive papers were required to be shown. Perhaps the most active man in all this charitable work was Dr. Paul Brousse, a vice-president of the Municipal Council, and physician. It was in part, at least, due to his personal representations to the authorities that some of the measures of relief were so rapidly undertaken; and he thus became the willing means by which much suffering, sickness, starvation and mortality were prevented. Not the least remarkable feature in strange situations was the celerity of action on the part of public officials, who for the time being became a unit in the disregard of precedent, red-tape and every other ordinary occasion for delay.

If the poor famishing Brules and Ogallalas, in the West, could for a short time only have the services of Dr. Paul Brousse, it would be a god-send to the country.

SPLENIC LEUCOCYTHEMIA.

DR. H. TOULMIN has described in the *Johns Hopkins Hospital Bulletin* a well-marked case of this disease, in which the microscopic blood-conditions were examined with more than usual minuteness. The patient was a colored waiter twenty-three years old. He gave a history of malarial

infection, dating back about two years; and had been suffering from swelling of the abdomen and legs from six to nine months. Among other symptoms he had had were epistaxis, a slight diarrhœa and incontinence of urine; priapism, so often observed in leucocythemia, was denied as having existed. The splenic "lump in his stomach" was first noticed by the patient about nine months before, when it would seem to have attained it present enormous size quite rapidly. It was prominent in the left hypochondrium and epigastrium, and occasioned a girth of 36 inches at umbilicus. The lump was a firm, solid and movable mass, occupying the left zone, reaching to the level of the anterior superior spine, to nearly three inches from the pubic bone and to three and a half inches to the right of the median line at the umbilicus. The edge of the swollen spleen could best be palpated in the right inguinal region. No notch could be felt. Posterior dulness on percussion extended from the lower border of the seventh rib for sixteen inches. There was no pulsation; no murmur could be heard; the superficial veins showed no enlargement; no engorgement of the lymph-glands, and no tenderness over the bones or enlargement of their extremities were found. The examination of the blood showed the proportion of white corpuscles to be as one to four, to the reds; reds were 2,008,000; hæmaglobin 30 per cent. Two weeks later, there were reds 2,700,000; proportion of whites to reds 1 to 4.48; total of Fowler's solution taken minims cc.; hæmoglobin not stated. One month after last entry, there were reds 3,430,000; proportion of whites to reds 1 to 18.8; total of Fowler's solution minims dccxx; hæmoglobin 51 per cent. As indicated in the above, the patient was put on Fowler's solution, beginning with three minims thrice daily, and increased to six minims. Under this treatment the œdema was reduced, and some of the other symptoms were mollified; but the splenic enlargement remained and was practically unchanged. The general condition of the patient is otherwise favorable, and the man reports to be feeling well. An examination of the cell-elements, made according to Ehrlich's method, show the blood to contain some in deficient quantity, such as lymphocytes 4 per cent.; polynuclear neutrophiles 50 per cent.; mononuclear transition forms 5 per cent.; while others are in excess, such as eosinophiles 5 per cent., and myelocytes (mononuclear neutrophiles) 30 per cent. Not the least remarkable feature in the case is the excellent general condition that has been sustained; he states that he has never before weighed more than 165 pounds, while at present his weight is ten pounds above that record.

EDITORIAL NOTES.

THE PRELIMINARY TRAINING OF RAILWAY EMPLOYÉS.—In view of the very large number of accidents, resulting either fatally, or in the maiming of the unfortunate ones for life, it is proposed to establish schools of training at favorable railway points. In the aggregate the number—2,000 killed, and 20,000 injured in 1890—of sufferers is great, and the utmost means of prevention should be taken. It is true that carelessness is responsible for a goodly proportion of the accidents, and it is this very factor which will be largely overcome by a proper drilling, and a due presentation of consequences.

A NEW DISEASE.—Two English physicians—Dr. Hale White and Mr. Golding-Bird—have recently described an affection to which they give the name "Idioglossia." It appears that the patients hear well, and express themselves in articulate sounds, but such sounds are unlike those of any known language. The patients really have a language entirely of their own, in which there does not seem to be any confusion, *i. e.*, the sounds given forth have an intelligent application, and the same sound always has the same meaning. The discussion before the Royal Medical and Chirurgical Society was varied, some of the members contending that the so-called language of those affected was but a modification of the English tongue, and was to be accounted for by a lack of development in that particular direction.

A LITERARY PHYSICIAN. — Notwithstanding the almost constant application required of a physician in the active pursuit of his profession, yet there are men—we have them in this country—who find, or make, the opportunity of adding literary laurels to the honors achieved in medicine.

Dr. William Stricker, of Frankfort-on-the-Main, has recently passed away, leaving behind enduring works, of which the following is a partial list: "History of Medicine in Frankfort;" "The Lives of Soemmering, Neff and Stiebel;" "Ett-

ner's Medical Novels;" "The Cure of the Sick in the Wars of the Past;" "Taylor, Ludwig Hoernigk, Burggrave, Haller, Zimmerman;" "The Mortality of Children;" "Suicide;" "Marriages between Blood Relations;" "Medical Statistics; "Hermaphroditism;" "Hairy Men;" "Small-pox;" "Vaccination;" "Labial Cancer;" "The Effects of Lightning on the Human Organism;" "History of Frankfort;" "Life of Goethe," etc.

A CASE OF ACROMEGALY.—Dr. Joseph Redmond has recently reported to the Irish Royal Academy of Medicine a case of acromegaly, believed to have been the first hitherto reported from Ireland. According to the *British Medical Journal* the attack dates from December, 1889, during the prevalence of the influenza. The patient, a female of 19 years, was admitted to the hospital in July last. The first symptoms that attracted her attention were the changes in her hands and feet, which became swollen, sore and tender to the touch. The hands were large, fingers thick and bulbous, with nails somewhat convex; the back of hands became œdematous, but did not pit on pressure. There was marked increase in the size of the carpal ends of both radius and ulna. The knees were enlarged, as well as the legs and ankles. The ankle-joints contained some effusion. The feet were larger and thicker than normal; the toes were thicker and bulbous. The dorsum of the feet was œdematous. Urine normal. The thyroid gland appeared to be absent, and no evidence of the persistence of the thymus could be obtained. Pulse average was 100; temperature 101.6°; respirations 24. The patient has at times complained of lumbar pains, and has had occasional attacks of diarrhœa.

DEPOPULATION FROM DISEASE.—Official reports go to show that the native population of Alaska is fast disappearing, mainly from the severe ravages of syphilis, tuberculosis and smallpox. Medical measures are unknown, yet if there was some appreciation of the advantages of prevention and treatment there appears to be no opportunity by which aid could be given. The plight of these unfortunates is certainly a sorry one, and the possibilities for the medical missionary are great. Some attention, whether governmental, or through the operation of the organized charitable associations, should be directed to this state of things prevailing upon American soil.

A VERY COMMENDABLE FASHION.—Occasionally Fashion—so-called—has the credit of leading the susceptible mind into channels where Health and Vigor follow. This is the case—this is the leading—at present in regard to hot milk as a popular beverage. If only the temperance disciples could fully awake to the golden opportunity this "fad" opens!

Hot milk is a wonderful food and stimulant. It combines these two virtues most happily, more so, probably, than any other one substance, or combination of substances. National degeneracy need hardly be feared from the universal consumption of hot milk as a constant drink. We can see but one danger in this direction, and that we believe will be fully overcome by having the temperature of the milk, in all cases, carried to the boiling point.

EPIDEMIC INFLUENZA IN AFRICA AND ASIA.—Letters from the Congo Free State mention the occurrence, in October last, of an extension to those parts of an epidemic sickness that bears a very close resemblance to the "Russian influenza." Nearly everybody has had "a cold," while some have been very ill. The season there has been unusually cold in the upland regions, two and three hundred miles back from the coast.

A letter in *The Lancet*, also, states that at Gilgit, Kashmir, in December, there had been an epidemic, supposed to have been taken there by a party of Moslem priests from a place 200 miles farther west, where the influenza had already been prevalent. These mountain valleys, about 5000 feet above the sea, called the Hindu Khush valleys, have hitherto been exempt from the influenza, although it had existed in India earlier in the year 1890. The invasion seemed to approach from the west rather than from the south, although the avenues of communication, in the latter direction, were much more accessible.

THE INTERVIEWER IN MEDICINE.—Some of our New York brethren in open rebellion against the American Medical Association, held an experience meeting a few weeks ago, to which some how the ubiquitous reporter also came, presumably for the benefit of those who do not take the journals. There was a debate upon the inter-

views as conducted by the secular press, faintly apologetic but mainly mock-heroic in tone with which nearly all (lay and professional) regaled themselves at their morning breakfast. With a single exception, the speakers who were sticklers for the dignity of the profession were either silent or un-reported. We need not remind our brethren of goodly Gotham, who are so strenuous about enlightening the public, that there is an oft quoted phrase about barking with hounds and running with the hare. There also comes to us the story of the vain-glorious veteran, of whom some little Wilhelmina, "with wonder-waiting eyes" asked, "Grand-pa didn't you have anybody to help you."

MEDICAL ITEMS.

DISSECTION MATERIAL IN NEW YORK.—A bill to meet the wants of post-graduate instruction in surgical anatomy at the two schools in New York City has been put upon its passage. The under-graduates' schools have hitherto been able to absorb all the material allowed by law to be distributed to the colleges. The new arrangement will, if it passes the legislature, enable the post-graduates to come in for a *pro rata* share.

CRUELTY OF A NURSE PUNISHED.—A recent conviction in New York has resulted in sending up to Sing Sing Prison a former Bellevue Hospital nurse, who struck a blow at a delirium tremens patient, who spat upon the nurse; the patient was in a strait-jacket at the time. The conviction was for assault in the second degree and the term of imprisonment will be two years and eight months.

A TORNADO MEMORIAL HOSPITAL.—The citizens of Louisville, on March 27, commemorated the cyclone of last year by meeting and by taking up collections for the establishment of a Children's Hospital, to be a memorial of the destructive tornado. It is reported that $30,000 have already been promised for this unusual project to link a great public calamity with an endurduring monument of charity, and thus convert it into a blessing in disguise.

INFLUENZA IN CENTRAL AFRICA.—A recent number of the *Lancet* publishes a letter, dated October 11, 1890, from the neighborhood of Lake Nyasa, Central Africa, by which it appears that epidemic influenza had just reached that distant point. It had been very severe and a number of deaths among the natives had resulted from it or its consequences; most of the Europeans at Blantyre, a Scottish mission station near the Shiré River, had been attacked by it in a more or less severe form.

TOBACCO AND ORGANIC LESION OF THE HEART.—In connection with the discussion which occurred at the New York Academy of Medicine at its stated meeting of Dec. 18, 1890, (as chronicled in the *Medical Record* of Jan 17, 1891), relative to the influence of tobacco upon the system, the President, Dr. A. L. Loomis, thought that when tobacco poisoning reached a point where it produced disturbance of the heart there was something more than functional disturbance; there was a change either in the connective tissue or of the muscular fibres of the heart. Such hearts did not bear ether nor cocaine. He impressed the fact that the heart condition was not functional; it was organic.

Dr. A. Jacobi having elicited from the President the opinion that in such cases there was never, as far as his observation had gone, entire recovery from the heart trouble, said that he could not agree with him. He knew persons who had had functional disturbance of the heart from tobacco-poisoning recover entirely after the use of tobacco had been discontinued. That was a hope which he thought we should hold out to our patients, unless it could be shown that the lesion causing the disturbance was of a nature which did not admit of entire recovery.

The President thought Dr. Jacobi had in mind cases of disturbance of the stomach from use of tobacco, which caused reflex irritability of the heart.

Dr. Jacobi remarked that the President seemed to know his mistakes better than he knew them himself. He did not believe that he had made a mistake, although he thought there was room for diversity of opinion. He would be very sorry to have patients get the idea that their condition was an organic change in the heart which could not be remedied.

Dr. Andrews mentioned a case in which the man was obliged, twenty-five years ago, to give up tobacco on account of disturbance of the heart, and he remained well to-day at 76.

TOPICS OF THE WEEK.

OFFICIAL REPORT ON THE RESULTS OF KOCH'S TREATMENT IN PRUSSIA.

We surrender the space usually assigned to the consideration of current medical topics, this week, that we may present to the readers of THE JOURNAL a very complete *résumé* of the results thus far obtained in Prussia, in connection with the use of tuberculin in the treatment of tuberculous diseases. From the voluminous report published as a supplement to the *Klinisches Jahrbuch* the *British Medical Journal* of March 14, presents the following valuable abstract, which we publish entire:

The official report of the results of Koch's treatment of tuberculosis, as observed in the University clinics and "polikliniks," and other public institutions of Prussia, has just been issued in the form of a supplement to the *Klinisches Jahrbuch*, a publication which owes its existence to Cultus Minister von Gossler. The editor of the volume is Professor Albert Guttstadt, Lecturer on Medical Statistics in the University of Berlin. It includes 55 reports, of which 43 are from the University clinics and "polikliniks," 2 from non-clinical departments of the Charité Hospital, 2 from the Moabit City Hospital, and 8 from pathologico-anatomical institutes of universities. The period to which the reports refer comprises, as a rule, the eight weeks from the beginning of November to the end of December, 1890; in some few cases, however, it goes down to the middle of January, 1891. The reports of Professor Fräntzel and Dr. R. Köhler begin from September 12 and October 11 respectively. The total number of patients injected during the period covered by the reports was 2,172, the total number of injections being more than 17,500. The greatest number of injections in any one case was 54. This patient was under the care of Dr. Paul Guttmann, suffering from very advanced pulmonary phthisis, and he received in all 3.345 grams of the mother liquor. He is now in a relatively favorable condition, but there is no appreciable change in the objective symptoms. The largest quantity of tuberculin administered in any one case was 3.826 grams. This patient (a man with pulmonary phthisis, under the care of Professor Fräntzel) received in all 43 injections. In this case remarkable improvement in the physical signs and in the general bodily condition followed the treatment, and was maintained when last heard of (in February).

The volume contains reports from Professors Leyden, Gerhardt, Senator, Fräntzel, Bardeleben (with Dr. A. Koehler), Olshausen, Jolly, Henoch (with Dr. Goerne), Lewin, Schweninger, Schweigger, Lucae, E. von Bergmann, B. Fränkel, and R. Virchow, and Drs. R. Köhler and Westphal, of the University of Berlin; Professors F. Schultze, Trendelenburg, Doutrelepont, Walb, Finkler, and Koester, of Bonn; Professors Biermer, Mikulicz, Fritsch, Neisser, and Ponfick, of Breslau; Professors Ebstein, König (with Dr. Hildebrand), and Orth, of Göttingen; Professors Mosler and Strübing (with Dr. Peiper), and Helferich, of Griefswald; Professors Weber, von Bramann, Schwartze, and Ackermann, of Halle; Professors Quincke, Edlefsen, von Esmarch, and F. Petersen, of Kiel; Professors Lichtheim, J. Schreiber, Braun, von Hippel, and Neumann, of Königsberg; Professors Mannkopff, Rumpf, Küster, Barth and Marchand, of Marburg; besides supplementary reports from Professor Julius Wolff, of the Berlin Orthopædic Poliklinik, Professor A. Heller, of the Pathological Institute at Kiel, and Dr. Paul Guttmann and Professor Sonnenburg, of the Moabit Hospital, Berlin. Professor Koch's two papers on his remedy are published in an appendix. Finally, there is an elaborate analysis of the reports with tabular statement of the clinical details, number and doses of injections, and results in most of the cases, by Professor Guttstadt.

DIAGNOSTIC VALUE OF TUBERCULIN.

Internal Tuberculosis.—Leyden looks upon tuberculin as of essential service in confirming the diagnosis of tuberculous disease, but in the absence of definite symptoms would not rely on it alone for that purpose Gerhardt thinks it is not absolutely to be depended on, inasmuch as cases have occurred in which, though tubercle bacilli were undoubtedly present, the injection caused no reaction. It may, however, be useful for the differentiation of tubercle from syphilis in the larynx and lung. Schultze thinks it, within certain limits, a reagent for the detection of tubercle. Biermer expresses himself with some reserve, as he has met with two cases of certain tuberculosis with bacilli in the sputum in which continued injections produced neither general nor local reaction. Ebstein thinks the detective action of the fluid uncertain; This opinion is shared by Mosler, Strübing and Peiper, who, nevertheless, think tuberculin may help to show whether previously existing tubercle is cured or not. Weber says it is not a sure diagnostic agent for internal tuberculosis, and does not give certain results in doubtful cases; it is more useful in external disease. Quincke is at present unable to conclude that in all cases in which the fluid causes reaction there are latent foci of tuberculosis. Finkler and Schreiber place more reliance upon it, and Rumpf thinks it of service in doubtful cases. P. Guttmann speaks in the tone of an ardent believer. In pregnant women Olshausen says tuberculin has failed to produce any reaction when the existence of phthisis was certain. Fritsch thinks the fluid is of high diagnostic value in the differentiation of tubercle from cancer.

External Tuberculosis.—Bardeleben and A. Köhler admit that tuberculin occasionally fails to produce reaction in cases of external tuberculosis; they think this may possibly be accounted for by individual idiosyncrasy or by slight differences in the fluid itself. Von Bergmann thinks it is a valuable means of differentiating tubercle from syphilis and cancer; Trendelenberg considers it reliable except in tubercle of the testis; Mikulicz places confidence in it; König and Hildebrand do not value it highly; Helferich thinks it an important aid to diagnosis; von Bramann says it is "apparently" a sure reagent for tubercle; von Esmarch also thinks highly of it in lupus and in bone and joint disease; von Braun and Küster think it extremely useful, though not infallible; R. Köhler and Westphal look upon it as superior to all

known aids to differential diagnosis; Lewin considers it useful; Doutrelepont and Neisser think it of high diagnostic value; von Hippel has found it of service in two cases of doubtful eye disease.

THERAPEUTIC RESULTS.

Commencing Pulmonary Phthisis.—Leyden treated 9 cases of commencing pulmonary phthisis, but no statistics are given as to results. Gerhardt treated 15 cases, of which 4 were discharged improved and 11 are still under treatment; of the latter 3 are said to be materially improved, 1 is improved, while in 7 there is no change. Senator reports 39 cases, of which 10 have been discharged and 29 are still under treatment; of those belonging to the former category, 3 were materially improved, 3 were improved, and 4 were *in statu quo.* Of those still under treatment, 2 are greatly improved, 3 improved, 20 are unchanged, and 4 have been made worse. Schultze has treated 9, of which 1 has been discharged unrelieved, while of the 8 still remaining under treatment, 2 are materially improved, 2 improved, and 4 unrelieved. Biermer has had 12 cases, of which 2 have been discharged unrelieved, while of the remaining 10, improvement is recorded in 6 and no improvement in 4. Ebstein reports 3 cases, of which 1 was discharged unrelieved, while of the 2 others, 1 is not improved and 1 is described as worse than before the injections were begun. Of 7 cases treated by Mosler, 2 have been discharged materially improved, 1 improved, and 2 unrelieved; of the 2 still under treatment, both are improved. Of 9 cases still under treatment by Weber, 3 are materially improved and 6 are improved. Quincke reports 10 cases, of which 2 haue been discharged improved, while the 8 still under treatment show no change. Lichtheim has 9 cases under treatment, of which 2 are greatly improved, 4 are improved, and 3 are unchanged. Mannkopff has 9 cases under treatment, of which 1 is greatly improved, 2 are improved, and 6 are unrelieved. Finkler has had 10 cases, of which 4 were discharged cured and 3 greatly improved; the 3 remaining under treatment were all improved. Edlefsen has 2 cases under treatment, both of which are materially improved. Schreiber reports 12 cases, 1 of which was discharged cured and 2 unrelieved; of the 9 still under treatment, 2 are greatly improved, 1 is improved, and 6 are unchanged. Of 19 cases under Rumpf's treatment, 13 are greatly improved, 5 are improved, and 1 shows no change. Of 3 cases under Fräntzel's care, 1 is greatly improved and the other 2 show no change. Of 54 cases treated by P. Guttmann, 4 have been discharged cured, 8 greatly improved, 1 improved, and 1 *in statu quo.* Of the 40 cases still under treatment, 21 are greatly improved, 10 are improved, and 9 are unchanged. Neisser reports 2 cases, both improved. Henoch has 5 still under treatment, of which 1 is improved and 4 unchanged. B. Fränkel has 4, all of which show great improvement.

Moderately Advanced Pulmonary Phthisis.—Leyden has had 23 cases, of which no particulars are forthcoming. Gerhardt has had 34, of which 2 have been discharged unrelieved, 2 have died, and of the 30 still under treatment 3 are materially improved, 4 improved, and 23 unchanged. Senator has had 32 cases, of which 1 has been discharged greatly improved, 6 improved, and 14 unrelieved, while 1 has died; of the 10 cases still under treatment 1 is greatly improved, 3 are improved, and 6 show no change or have been made worse. Schultze has 26 under his care, of which 2 are greatly improved, 4 improved, and 20 unrelieved. Biermer reports 17 cases, of which 1 was discharged unrelieved, 1 died, and of the remaining 15, 5 are improved, and 10 show no change. Ebstein records 18 cases, of which 6 have been discharged unrelieved, and 12 are still under treatment without showing any improvement. Mosler has had 25 cases, of which 4 have been discharged much improved, 4 improved, and 14 unrelieved; of the 3 still under treatment all are much improved. Of 13 cases under Weber's care, 2 are much improved, 4 improved, and 7 unrelieved. Of 21 under Quincke not one shows any improvement. Of 16 under Lichtheim, 1 has died; and of the 15 still under treatment, 9 are improved and 6 unchanged. Of 13 under Mannkopff, 1 is greatly improved, 5 are improved, and 7 are unchanged. Of 27 cases reported by Finkler, 2 have been discharged materially improved, 5 improved, and 13 unrelieved; of the 7 still under treatment, 2 are improved, and 5 show no change. Of 4 cases under Edlefsen, 1 has been discharged much improved, and 1 has died; of the 2 still under treatment, 1 is improved, the other not. Of 11 cases treated by Schreiber, 1 has been discharged improved, and 4 unrelieved; of the remaining 6, there is material improvement in 1, while 5 show no change. Of 20 cases treated by Rumpf, 3 have been discharged unrelieved, and 1 has died; of the 16 still under treatment, 6 are much improved, and 10 *in statu quo.* Of 16 under Fräntzel, 3 have been discharged improved, and 1 has died; of the remainder, 4 are greatly improved, 2 are improved, and 7 are unchanged. Of 112 cases under P. Guttmann, 16 have been discharged much improved, 4 improved, and 5 unchanged; of the 87 still under treatment, 14 are greatly improved, and 3 unchanged. Henoch has had 1 case, which was discharged unrelieved or rather worse than before. B. Fränkel has had 14, of which 1 has been discharged cured; the 13 still under treatment are all greatly improved. Lewin has had one case, which was discharged unrelieved.

Very Advanced Pulmonary Phthisis.—Leyden has had 20 cases, of which 4 have died; as to the remaining 16 no details are furnished. Gerhardt has had 8, of which 1 has died, and 7 are still under treatment without showing any improvement. Senator has had 8, with 5 deaths, the remaining 3 being unrelieved. Schultze reports 14, in none of which has there been any improvement; Biermer 7, with 1 death and 6 unrelieved; Ebstein 6, of which 2 have been discharged unrelieved, while 4, which are still under treatment, show no improvement; Mosler 28, of which 3 have been discharged greatly benefited, 7 improved, and 14 unrelieved, while of the 5 still under treatment 1 is improved and 4 unchanged; Weber 22, of which 2 have died, 2 are improved, and 18 unchanged; Quincke 5, of which 1 is improved and 4 not; Lichtheim 9, with one death, 4 improved, and 4 unrelieved; Mannkopff 8, of which 1 is improved and 7 unchanged; Finkler 32, of which 3 have been discharged improved, and 11 unrelieved, and 2 have died, while of the remaining 16, 2

are improved and 14 *in statu quo;* Edlefsen 3, all unchanged; Schreiber 6, of which 1 has been discharged improved, 3 unrelieved, and 1 has died, while the 1 still under treatment shows no improvement; Rumpf 7, of which 1 has been discharged unrelieved, while of the 6 still under treatment 2 are improved and 4 *in statu quo;* Fräntzel 17, of which 1 has been discharged improved, 1 unrelieved. 4 have died, whilst of the 11 still under treatment, 1 is greatly improved, 3 are improved, and 7 are unchanged; P. Guttmann 30, of which 5 have been discharged unrelieved and 8 have died, while of the 17 still under treatment none show any improvement; Sonnenburg 7, of which 3 are greatly improved, 3 are improved, and 1 is unrelieved; Olshausen 3, of which 2 have been discharged unrelieved, while 1 is *in statu quo;* Henoch 1, discharged unrelieved; and B. Fränkel 5, with 1 death, 1 improved, and 3 unrelieved.

On the whole Leyden is fairly satisfied with the results so far, while Senator thinks them better than could have been produced by any other treatment; Schultze is not enthusiastic; Ebstein is inclined to be pessimistic; Biermer states that in 3 cases the tuberculous process made distinct headway during treatment; Mosler, Stfibing, Peiper, Weber, Finkler, and Schreiber all speak with reserve; P. Guttmann claims decided "improvement" in 38 per cent. of all his cases (164), and in 81 per cent. of the "incipient" cases taken alone.

Effect of Treatment on Symptoms in Phthisis.—1. Body weight: Of 61 cases under Gerhardt, 22 have gained weight, 17 remain as before, and 22 have lost. The gain ranged from ½ to 5 kilos., the loss from ½ to 8½ kilos. In one of the Senator's cases 4.4 kilos. were gained in a week, and on several occasions there was an increase from 1½ to 2 kilos. in the same space of time. Eight patients in a very advanced stage of phthisis, with cavities, chronic diarrhœa, etc., gained weight, in some cases as much as 2½ kilos. Biermer found increase in 11 cases, the average gained being from 2 lbs. to 3 lbs., and in one case as much as 10 lbs. In 17 cases there was progressive loss of weight to the extent of 1 lb. to 6 lbs.; in the other cases there was neither loss nor gain. Weber noted increase in 16, and loss in 28, while in 12 it remains stationary. P. Guttmann says the weight increased in a large number of cases under his care, the maximum gain being 7½ kilos. 2. Expectoration: Gerhardt says expectoration mostly increased at first, in 5 cases it became bloodstained. Afterwards it gradually decreased, and became more mucous. In several cases the bacilli seemed to diminish at first; in particularly favorable cases they disappeared from the sputum. Senator found that the bacilli diminished in favorable cases, but in no instance disappeared altogether. Ebstein has seen no improvement either in the quantity or the quality of the sputum, and no diminution of bacilli. Mosler on several occasions noticed that the expectoration was bloodstained, but he did not see actual hæmoptysis. Weber says cough was improved in 14 cases, increased in 15, and remained *in statu quo* in the rest. The expectoration was diminished in 18, increased in 12, and unchanged in the remainder. Lichtheim says that in almost all cases after the subsidence of the reaction both cough and expectoration were lessened. In one case expectoration and the appearance of bacilli followed the commencement of the injection, and ceased on their discontinuance. Mannkopff noticed little or no

TABLE I.—*Statistical Statement of the Action of Koch's Fluid in Tuberculosis of Internal Organs.*

DISEASES.	No. of Cases Treated.	Cured.	Substantially Improved.	Improved.	Unimproved.	Died.
I.—*Pulmonary Tuberculosis:*						
1. Early pulmonary phthisis	242	9	72	59	93	0
(*a*) With laryngeal tuberculosis	30	0	10	6	13	0
(*b*) With tuberculosis of other internal organs	7	0	1	2	4	0
(*c*) With other diseases	8	0	0	1	6	0
2. Moderately advanced pulmonary phthisis	444	1	68	68	278	6
(*a*) With laryngeal tuberculosis	85	1	10	11	37	2
(*b*) With tuberculosis of other internal organs	15	0	1	4	5	2
(*c*) With other diseases	14	0	0	0	7	2
3. Very advanced pulmonary phthisis (cavities)	246	0	7	31	162	30
(*a*) With laryngeal tuberculosis	60	0	1	4	45	5
(*b*) With tuberculosis of other internal organs	24	0	1	2	17	1
(*c*) With other diseases	16	0	0	1	7	5
I.—*Pulmonary Tuberculosis* (all grades taken together)	932	10	147	158	533	36
(*a*) With laryngeal tuberculosis	175	1	21	21	95	7
(*b*) With tuberculosis of other internal organs	46	0	3	8	26	3
(*c*) With other diseases	38	0	0	2	20	7
II.—*Laryngeal Tuberculosis*	63	1	18	23	15	4
With Pulmonary tuberculosis	45	0	16	13	12	4
III.—*Pleurisy*	13	1	0	3	9	0
IV.—*Pernicious Anæmia*	1	0	0	0	0	1
V.—*Tuberculous Meningitis*	4	0	0	1	1	2
VI.—*Peritoneal Tuberculosis*	14	1	3	3	4	2
VII.—*Intestinal Tuberculosis*	1	0	1	0	0	0
VIII.—*Renal Tuberculosis*	4	0	0	0	4	0
IX.—*Urethral and Vesical Tuberculosis*	10	0	0	4	5	1
X.—*Testicular Tuberculosis*	18	0	2	2	14	0
XI.—*Double Tuberculous Pyosalpinx*, with incipient pulmonary phthisis	1	0	0	0	1	0
Totals	1,061*	13	171	194	586	46

* The difference between the total number of cases and the number in which the result of treatment is given is due to the fact that a few reporters give no information as to the result.

TABLE II.—*Statistical Statement of the Action of Koch's Fluid in External Tuberculosis.*

DISEASES.	No. of Cases Treated.	Cured.	Substantially Improved.	Improved.	Unimproved.	Died.
I.—*Lupus*	188	5	78	84	21	0
With tuberculosis of internal organs	27	0	5	6	3	0
II.—*Tuberculosis of Single Bones and Joints*	397	9	51	119	211	6
With tuberculosis of internal organs	48	0	1	4	22	1
III.—*Tuberculosis of Several Bones and Joints*	40	0	3	12	23	2
With tuberculosis of internal organs	10	0	0	1	7	2
IV.—*Tuberculosis of Lymph Glands*	38	0	9	7	22	0
With tuberculosis of internal organs	8	0	1	0	7	0
V.—*Tuberculosis of Soft Parts*	8	0	1	4	3	0
VI.—*Tuberculosis of Scars*	4	0	0	3	1	0
VII.—*Scrofuloderma*	6	1	2	3	0	0
VIII.—*Lepra*	2	0	0	1	1	0
IX.—*Rodent Ulcer*	2	0	0	1	1	0
X.—*Tuberculous Anal Fistula*	3	0	1	0	1	1
XI.—*Tuberculosis of Sheaths of Tendons*	1	0	1	0	0	0
XII.—*Scrofulous Eczema*	1	0	0	1	0	0
XIII.—*Scrofulous Keratitis of Both Eyes*	2	0	2	0	0	0
XIV.—*Ear Diseases*	16	0	0	2	14	0
With pulmonary tuberculosis	7	0	0	1	6	0
Totals	708	15	148	237	298	9

change in the quantity or quality of the expectoration. 3. Respiration: Gerhardt says that vital capacity increased in 5 out of 10 cases. 4. Physical signs: Gerhardt says that in many cases there was diminution of dulness and *râles*. Senator noticed in some favorable cases a complete disappearance of catarrhal signs and *râles*. Neither Ebstein nor Mannkopff observed any particular change in the physical signs. Fräntzel says that after treatment had been continued for a certain time the *râles* almost disappeared in some cases. 5. Night sweats: Senator records the cessation of night sweats even in cases where before the treatment they had been considerable in amount. Weber says that in 11 cases the night-sweats diminished, while in 3 they increased. Lichtheim, Mannkopff, and Fräntzel also say the injections had a good effect on night-sweats. 6. General condition: Gerhardt says that three patients felt so well that they insisted on leaving the hospital, though the physical signs showed that they were not cured. In 10 cases the treatment had to be discontinued by reason of weakness, persistent fever, or progressive loss of weight. Senator says the treatment had a favorable effect on the subjective feelings of a large number of patients; they looked better, and were stronger and more cheerful. Biermer, on the other hand, found that many patients complained that the treatment made them feel weaker and lower. Mosler notes an improvement in the appearance of patients. Weber says that the general condition became worse in 22 cases, while 33 patients expressed themselves as satisfied with the effects of the remedy.

Other Tuberculous Diseases.—The general results of the treatment in laryngeal phthisis, lupus, and other forms of tuberculous diseases will be seen in the table here appended, which is literally translated from pages 904, 905.

SOCIETY PROCEEDINGS.

St. Louis Medical Society.

Stated Meeting, Saturday, February 28, 1891.

THE PRESIDENT, L. BREMER, M.D., IN THE CHAIR.

[Abstracted for THE JOURNAL].

TUBERCULOSIS (?) OF THE LIVER.

DR. GALE presented an abscised portion of a liver taken from a boy 11 years old. An abscess had formed over the liver two years ago, and latterly a tumor had developed in the same situation. Syphiloma was excluded. Upon operating a tumor involving one-third of the right lobe was found, and which was removed. The temperature, which had previously been 101° constantly, regained the normal point after the operation, and the case (twelve days after) promised a good recovery.

Discussion was postponed pending a microscopical examination of the specimen.

ACUTE OTITIS MEDIA.

DR. BARCLAY reported a case of this disease where quinine had been ordered in large doses, with the effect of greatly increasing the patient's distress, and where relief was found by the almost constant application of cold water to the ear. The patient had himself applied the cold water from a well for two nights and one day.

DR. BREMER mentioned a case of death from probable meningo-encephalitis as the outcome of a too severe syringing of the ear; and a case, also, of the same inflammation from a too severe syringing of the nose. He did not believe it a good or safe practice to inject a forcible stream into these cavities.

DR. WILLIAMS thought the President accused the syringe unjustly. He believed the ear syringe had been made to answer for a great many results it was in no wise accountable for. He had certainly used the syringe a great deal, yet had never seen encephalitis induced.

DR. F. J. LUTZ agreed with Dr. Williams, still an observation of two recent cases wherein meningitis followed closely upon the use of ear and nasal syringes, led him to believe that there might at times be danger in the unskilful and untimely use of these measures.

DR. LOEB did not think harm followed the reasonable use of the douche. Exaggerated cases, doubtless, there were. He advocated the spray instead of the douche.

DR. FUNKHOUSER reported an interesting case of inflammation of the ear, extending to the meninges and finally resulting in death, and in which the syringe was not used.

DR. GLASGOW reported a case very similar to that of Dr. Funkhouser, and in which a syringe had not been used.

DR. BARCLAY remarked that the ear syringe, like almost all other instruments of value in the physician's hands, might be used in such manner, and at such times, as to cause harm. Discretion and judgment were highly necessary. He mentioned a case where syringing had been resorted to three times daily for three months, for an abscess, yet when it was discontinued the abscess healed completely in three days. He believed that authorities discarded the syringe more and more as their experience became extended.

DR. BREMER said that he recognized the different results which would occur from the use of the instrument in the hands of the intelligent experienced, and the thoughtless inexperienced.

HYPNOTIZING A MEDICAL PROCEDURE.—In a recent discussion of the question: Should a person, who, not being a member of the medical profession, performs hypnotic experiments on another, be prosecuted for illegal practice of medicine? The Conference of Paris Advocates decided in the affirmative.

FOREIGN CORRESPONDENCE.

LETTER FROM LONDON.

(FROM OUR OWN CORRESPONDENT.)

Sir James Crichton Brown on "Brain Rest"—B Naphthol and Salicylate of Bismuth as a Disinfectant in the Internal Treatment of Typhoid Fever—Results of Treatment with Dr. Koch's "Tuberculin"—The Consumption of Ether by the Irish—Miscellaneous Gleanings.

Sir James Crichton Brown, in his course of lectures recently delivered upon the subject of "Brain Rest," said that ordinary sleep grows deeper for the first hour and a half and then steadily diminishes until the slumberer awakens. Dr. Brown pleaded for eight hours for actively working brains, though ascetic notions have led many people to shorten the time, with the result that in certain cases it has been proved that the amount of sleep may be considerably reduced without injury. Literary men were apt to starve the brain in the matter of sleep, but some, nevertheless, had got on pretty well in spite of insomnia. Carlyle and Rossetti furnished instances. Dr. Brown quoted a letter from his friend Dr. Tyndall, who said: "For four weeks I have never had a single second of sleep, and during those nights I walked thousands of times round my room to no purpose. What astonishes me above all" (he adds) "is notwithstanding my nights' weariness my brain power does not appear to be sensibly impaired. After two or three hours' sleep I feel my brain as strong and clear as it ever was at any period of my life." It is, in Sir J. Crichton Brown's opinion, impossible to doubt that nutrition and repair must have gone on in the brain during periods of sleeplessness. The brain in short must, as he expressed it, "have learnt the trick of the heart and gone to sleep during the beats, or it must have slept in centres which were not active at the same time."

During the recent prevalence of typhoid fever various agents have been brought forward as disinfectants in the internal treatment of the disease. Several physicians consider naphthol to be superior to any other. There appears to be two kinds of naphthol, one which is more soluble and less toxic, but more irritant, is called A napthol, the other less soluble, more toxic, but less irritant, is called B naphthol. It is to the latter that preference is given, it being associated with salicylate of bismuth, both being given in the form of powders or granules, in such a manner that the patient takes daily from fifteen to thirty grains of naphthol.

The news has arrived that the official reports from all the Prussian clinics and pathological institutes on the results of treatment with Dr. Koch's "tuberculin" have been published by the Ministry for Public Instruction. It appears that the results were much better than was believed. From the middle of November to the end of December 2,172 persons received injections, the number of injections being more than 17,500. Of these patients 932 had tuberculosis of the lungs, 120 tuberculosis of other internal organs, and 700 external tuberculosis. Of those suffering from tuberculosis of the internal organs 13 were cured, 171 considerably improved, 194 improved, and 46 died. Of 708 patients suffering with external tuberculosis 15 were cured, 148 were considerably better, 237 better, and nine died.

There has lately been a great outcry concerning the consumption of ether by the Irish who have chosen it as an intoxicant, and in the House of Commons, in answer to a question by Dr. Tanner, Mr. Balfour said: "As stated by my right honorable friend the Chancellor of the Exchequer, in reply to a question addressed to him on December 1st, ether has been scheduled and it can now only be sold by qualified chemists or druggists as a poison." The statement laid before the executive government by Mr. Thomas Ledlie affords some idea as to the alarming proportions the habit had assumed. Mr. Ledlie calculates that seventeen thousand gallons of impure ether of the vilest form is annually consumed by the people in the districts situated in the counties of Derry and Tyrone, as well as parts of Armagh, Monaghan and Fermanagh, no fewer than 100,000 people spread over an infected area of 190,000 acres indulge in this baneful habit. He suggests six ways of getting rid of what he considers a baneful practice, the chief of which may be summarized as follows: The introduction of naphtha into the preparation of all ether, save that used purely for medicinal purposes, which would give it nauseating odor and taste, the reimposition of a prohibitive tax, and the making of the practice illegal and placing it upon the criminal code, as well as making the sale of ether illegal by all persons save chemists, and by this class of persons only for *bona fide* medicinal or commercial purposes.

At the Westminster Hospital there has recently been a death by asphyxia caused by exophthalmic goitre. The patient, a girl aged 20, had been under medical care for twelve months. In spite of treatment the goitre slowly increased until there were attacks of dyspnœa. Upon admission to the hospital asphyxia became imminent, and Mr. Spencer opened the trachea through the upper part of the tumor. The gland substance bulged greatly when the capsule was divided, and there was a large amount of hæmorrhage. Upon opening the trachea no improvement in the breathing took place, nor was there upon the introduction of an ordinary tracheotomy tube. A vulcanite tube was then passed for four inches down the trachea, when air entered freely. For a time the dyspnœa was entirely relieved, but during the evening mucus collected below the

tube, this the patient was unable to cough up, and she died asphyxiated. The operator considered that this termination of such a case was extremely rare. Mr. Spencer thinks that some recent operations by which a cure had resulted after the removal of a great portion of the gland connected the pathology of the disease closely with the thyroid gland.

The Senate of the University of London has received communications from the Royal College of Physicians and Royal College of Surgeons to the effect that both these institutions had given their complete adherence to the scheme proposed for granting a medical degree to London students after going through a prescribed course of education and passing the required examination by a competent board, formed by representatives from the University and the two Royal Colleges. This will be an immense boon to the students of the London medical schools, who have hitherto been obliged to go in search of degrees bestowed by foreign or provincial universities.

At the recent meeting of the Pathological Society Dr. Rolleston showed a patella from a joint which had been for some years partially dislocated outwards. To the articular surface of the bone was apparently attached the internal semilunar cartilage. The internal semilunar cartilage being absent from its proper position. The cartilage attached to the patella was adherent to its periphery just in the way that the semilunar cartilages are to the tibia, there was the same space between the articular surface of the patella and what appeared to be the tibial surface of the internal semilunar cartilage as there is normally between the semilunar cartilages and the tibia. In the present case the cartilage was adherent for its whole depth to the patella at the upper part. The two extremities of what was apparently the internal semilunar cartilage were firmly united by a plate of cartilage the size of a shilling. This portion was underhung by a synovial pouch, as was the greater part of the body. This additional piece of cartilage lay to the inner side of the patella, consequently the supposed internal semilunar cartilage must have turned round before becoming adherent to the patella. The surface of the external condyle was eburnated and devoid of cartilage; the external semilunar cartilage was partially eroded. The internal condyle of the femur was covered with cartilage.

A special meeting of the Ophthalmological Society has brought forward a motion in the following terms: "That in view of the course of medical study extending over a period of five years, it is expedient that the Ophthalmological Society of the United Kingdom urge upon the General Medical Council the desirability for making the study of ophthalmic medicine and surgery a compulsory part of the ordinary curriculum."

Mr. Ernest Stanbury Hankin, the young English man of science who is said to have discovered at Berlin a "cure" for anthrax, had a very brilliant career as a student at St. Bartholomew's Hospital, where his singular aptitude for microscopical work and his general power for work made him one of the favorite pupils of Dr. Klein, the celebrated bacteriologist. G. O. M.

DOMESTIC CORRESPONDENCE.

Dr. John P. Gray's Experience with Tuberculin.

To the Editor:—I have read with much interest the communication of Dr. von Ruck in a recent issue of THE JOURNAL, and desire to add my experience to his, as to the favorable results to be obtained from the proper use of "tuberculin." Returning from Berlin in the early part of January, I at once began the use of the lymph in the hospital here, and have had under treatment up to date twenty cases—of which three were lupus and the remainder pulmonary tuberculosis in the first and second stages. It is not my purpose in this article to go into a full report of these cases, reserving that for a later date, but to simply give the general results. In those patients suffering from lupus a steady improvement has been noticeable, the diseased tissue has gradually sloughed off, leaving a healthy cicatrix behind, so that in all three there seems to be a reasonable hope of permanent recovery.

Of the seventeen cases of phthisis two have recovered, or at least are well to the extent that they are up to their normal weight, have no cough, or expectoration, and the physical signs in the lungs are daily improving. Eight have improved markedly in that they have good appetites, have gained in flesh, and general strength, and the cough and expectoration have been greatly diminished. Three have improved slightly, in that the disease appears to have been checked. The remaining four have only been under treatment a short time, but two of these I hope will recover, or they are favorable cases and are improving rapidly.

As to the doctor's statement that "nowhere in this country or in Europe" a similar method of administrating the lymph has been adopted, I can only say that from the first I have followed exactly the same course, begining with a quarter or half a milligram, and gradually increasing the dose—never bringing on any violent general reactions, and never raising the amount while there was any effect to be observed from the injections. I also see from the *Wochenschrift* that the method has been adopted in some of the German hospitals.

Of course we have not had the climatic advantages that Asheville affords, and it has struck

me forcibly while observing the effects of the lymph treatment that if such good results could be obtained in the two worst months of the year, when the patients are more or less confined to the house, how much more might we hope for under favorable surroundings. Dr. Jacobi, in a recent article, hints that the future treatment for consumption will be a proper combination of climate and lymph, and feeling stronger that this is the case, I propose if possible to arrange for the treatment of a number of cases in the Adirondac region, where I am sure the percentage of cures can be greatly increased.

JOHN P. GRAY, M.D.

Utica, N. Y., March 29, 1891.

An American Medical Temperance Society.

To the Editor:—Several months since the undersigned received a communication from the Secretary of the British Medical Temperance Association, suggesting the formation of a similar organization in this country and the establishment of fraternal relations between them. The British Medical Temperance Association was organized in 1876, in London, with thirty members and Dr. Edmunds as President. It now embraces about five hundred members, with Dr. B. W. Richardson as President, and Dr. J. J. Ridge, Secretary. Among its members are many of the more eminent members of the profession in that country, and it has exerted a wide and most beneficial influence. The objects of the Association are declared to be "to advance the practice of total abstinence in and through the medical profession, to promote investigation as to the action of alcohol in health and disease, and to constitute a bond of union among medical abstainers scattered all over the country." . . . "It admits as members, registrable medical practitioners who are practical abstainers from all alcoholic liquors as beverages. It admits as associates, medical students who also practice total abstinence. Neither members nor associates are required to sign any pledge, but if such, for any reason, cease to be total abstainers, it is expected that notice of withdrawal from the Association will forthwith be sent to the Secretary." The liberty of members in prescribing alcohol as a medicine is entirely uncontrolled. The formation and active maintenance of such an Association in this country would accomplish an amount of good not easily estimated; and if those members of the profession who would favor such a step, will send me their address on postal card, I will provide a time and place for a meeting in Washington during the week of the next annual meeting of the American Medical Association in that city.

N. S. DAVIS, M.D.

65 Randolph St., Chicago.

Medical Legislation in the State of Missouri.

To the Editor:—In THE JOURNAL of March 7 appears an item relative to medical legislation in the State of Missouri, to the effect that a bill was pending to compel all medical colleges in the State to adopt three courses of lectures as a condition for graduation. The bill was unanimously recommended for passage by the committees of both House and Senate. The House passed it by the gratifying vote of 85 ayes to 22 noes. The Senate voted against the bill. As the session closes in two days there is no time to work for reconsideration, hence this most necessary reform is defeated, to the shame of Missouri. What makes the fact all the more mortifying is the contemptible nature of the opposition, all of the colleges in the State (14 in number) but one—located in St. Louis—appearing in favor of the bill. The medical profession of the State, so far as evidence shows, being overwhelmingly favorable. Powerful outside pressure was brought to bear to influence the Senate unfavorably.

The history of the bill is most interesting and extremely instructive, now that the profession all over our Nation is so busy in medical reform. The Missouri State Board of Health last year promised, through its Secretary, to follow the grand example of the Illinois Board, and in the due exercise of its proper authority defines a college "in good standing" to be such a one only, as among other conditions, required three years attendance upon lectures and clinics. For reasons that would take too long to explain here, the Board this year declined to take this step, but formally referred the whole matter to the Legislature, then in session. The Medico-Chirurgical Society of St. Louis applauded the bill, on resolution, and appointed a committee of three to assist in securing its passage. This committee waited on both House and Senate committee. Only in the Senate committee was any opposition made, the Dean of the objecting St. Louis college appearing. The ostensible basis of the opposition consisted in these two arguments, which will probably have to be confronted in every State where substantial medical reform in education is attempted: *First*, to require three years' attendance would work a hardship on the "poor boy;" *secondly*, to discriminate among the colleges would be "class legislation," and therefore "unconstitutional." The "poor boy" argument was vigorously worked and ingeniously applied. Among well-informed people these arguments may excite a smile, but that they should seriously be advanced and be ostensibly accepted by the Senate of a great State as sufficient ground to defeat so important a measure—what shall be said! Certainly, here is no smiling matter; particularly as this defeat will affect great interests outside Missouri. The Medico-Chirurgical Society regarded

the adoption of the reform as likely to strengthen the noble work of Illinois in that direction. Also, many of the Southern States and South-western might be led by this example to enact similar desirable laws; and thus the grand advance in medical education so imperatively demanded and so long agitated all over the Union, would be accomplished.

It is a fact that there is an element in Missouri sympathizing with the malcontents in Illinois, that openly declares that the Illinois State Board of Health will be broken down in its reform measures. Our neighbors need to be on guard so long as its Legislature sits, lest some hostile bill be slipped through in disguise, or in the ruck of measures blindly rushed along in the last days of the session.

I should state that great efforts were made to carry our bill. Members of the Legislature were written to by doctors from all over the State. One Senator assured me that his pockets were full of such letters, but that he did not always vote as his constituents desired; that, in fact, he thought people ought to be at liberty to employ just such service as they wanted, that he had obtained a license to practice law simply because an oppressive statute compelled him to do so, not that he thought such restrictions necessary. Another solon with considerable violence declared that for his part he would rather employ a doctor who had never been inside a medical college; I judged this contemner of mundane illumination believed with the immortal Dogberry, that reading and writing came by nature. Still another of the *Patres Conscripti* thought the bill favored caste in society, and having been born under the British monarchy, like a sound convert to republicanism, the very sniff of such servitude was abomination of abominations.

But enough of such experiences, so mortifying to a native Missourian; it is a comfort to know that the prime mischief worker is not even a Westerner by birth. I will close by saying that the friends of the bill summed up their argument in this: A jury of intelligent physicians from any part of the civilized world will not hesitate to declare that it is *impossible* to give the most capable student an education fitting him to practice medicine, under three years' attendance upon lectures and clinics.

In the Senate committee it was protested that it was with a sense of shame that we set the limit at three years. In Europe, even in Mexico, which country requires six years, no period less than four years is recognized. No wonder American diplomas—that is an injustice to South America and Canada—no wonder diplomas from the United States are regarded as contemptible in Europe.

I sincerely trust that THE JOURNAL will make these facts known all over the Union. The Legislature has not fairly dealt with its people, so that Missouri need not bear the burden of shame; the near future will put that where it shall stick.

CHAS. A. TODD, M.D.,
Of the Committee of the St. Louis Med.-Chir. Society.

That "Remarkable Case."

To the Editor:—I cannot help thinking that there must be an element of deception in the very remarkable case reported by Dr. Galbraith in your last issue. Apart from the inherent improbability of the extremely high temperatures noted, it seems to me a physical impossibility, so long as the circulation of the blood is maintained, that the temperature in the axilla should be 20 degrees higher than in the mouth. A temperature of 171°, or even 151° F., can only be borne by the finger for a very brief time without severe pain, and I think it may be set down as certain, that with a temperature approaching even the lower of these points, the vapor of the breath would form a cloud, in a room at the ordinary temperature, as that of a healthy person does on a cold day. I would suggest, in case of opportunity for further observations of the sort, that the temperature be taken in the rectum, under close observation. If the case were my own, I should be satisfied that if the thermometer registered higher either in the mouth or axilla than in the rectum, there was fraud somewhere, whether I could detect the manner of it or not.

In *The Lancet* (January, 1882, p. 35, American ed.), Dr. Mahomed reports a case, apparently somewhat similar, that came under his observation at Guy's Hospital. The patient, a woman, aged 22, suffering from phthisis, was repeatedly found to give readings of the thermometer ranging ftom 112 to 120°, and, in one instance, as high as 128° F. Although, with careful observation, he was never able to detect the way in which they were produced, he was satisfied that they were fraudulent, for the following reasons. When observations were made on several different parts at once, there were great differences in the temperatures recorded by the different thermometers. Surface thermometers gave only ordinary temperatures; neither the skin of the axilla nor the bulb of the thermometer on removal felt extraordinarily hot at times when high readings were obtained. No unusual temperatures were ever obtained by non-registering thermometers, although they were often used.

In the same volume of the *The Lancet*, p. 78, is an account by Dr. Stephen Mackenzie of the case of a woman who was under his care for an inflamed condition of the stump of an amputated thigh, who gave abnormally high temperatures on repeated occasions, the highest being 133.6°. This never occurred while she was closely watched, and she afterwards admitted that she

had produced the high temperatures by means of poultices, hot bottles, etc. Such means can, of course, be excluded in Dr. Galbraith's case, of which, I hope that he will let us know the final outcome.

W. L. WORCESTER, M.D.

State Lunatic Asylum, Little Rock, Ark., Mar. 23, 1891.

Has Omaha Found Munchausen's Mantle?

To the Editor:—The extraordinary case reported by Dr. Galbraith, of Omaha, in which the temperature of a lady with a slow pulse rose at times to 151° F., requiring the construction of new thermometers to register the phenomenon, scores another point for science. The average layman would doubtless flout such a story as ridiculous. He'd vow the doctor had conjured up this "whopper" only to see how great fools we mortals be, who should believe it. But in scientific matters of a medical nature, laymen don't know. In the presence of a wonder like this, they'd do like the old Dutch emigrant who chanced to go to a hot spring for water as he was about to camp for the night. When the hot water splashed up on his hands, he dropped the bucket in great fright and cried out to his son: "Trive on, Hans. Hell ish not far from dish blace!" But it is the province of science to account for the wonderful.

No doubt this case, if properly handled—and the doctor seems to be the man to do it—will yet reach the boiling point. We have heard of people's blood boiling, and if voiding 1,000 dead bones would not make one's blood boil, why pray what could? Of course it requires the mental breadth of high professional achievement to take such marvels in.

The case is the reverse of Longfellow's "Excelsior." Dr. Holland said of it that it sounded like the truth but it was a lie. This, on the other hand, sounds like a lie, but it's the truth; not a bit of doubt about it. Perhaps some doubting medical Thomases will even ridicule this humble attempt at the Doctor's defense. No matter. Let the heathen rage and the women siss. Science will be vindicated in the end. A medical book agent once approached a neighbor of mine to sell him the latest thing out in surgery. "No," said the Doctor, "I've no time to read it. I already have 10,000 volumes in my medical library, and besides I have to ride twelve miles every day to catheterize a lady from whose bladder I draw ten gallons of water every twenty-four hours." The agent was a layman. He couldn't understand it. He was dumbfounded at the Doctor's solemn asseveration of a scientific fact, and pronounced him "the monumental liar of America." The Doctor not having a string of titles to his name, the agent thought he had no license to lie like that. But the ignorant fellow simply didn't know. That's one great advantage the trained physician has. He can take in the most astonishing revelations of science without wincing.

JAMES L. TAYLOR, M.D.

Wheelersburg, Ohio.

ASSOCIATION NEWS.

American Medical Association.

THE COPYRIGHTING OF THE PROGRAMME. The attention of the Committees having charge of the compiling and printing of the Official Programme is called to the following resolutions unanimously adopted at the Nashville meeting:

WHEREAS, Certain parties without authority are presuming to make use of this Association for the furtherance of advertising interests, therefore

Resolved, That at all future meetings of the Association such publications be excluded from the place of meeting either of the General Sessions or of its Sections.

Resolved, That in the future each Chairman of the Committee of Arrangements be directed to procure a copyright of the Official Programme, to the end that the financial rights of the Association may be protected by due process of law.

RAILROAD ARRANGEMENTS.—Full particulars of the Railroad Arrangements for the Annual Meeting at Washington will be published in our next issue.

NOTICE TO SECRETARIES OF SECTIONS.—The programme should be in hand one week before the meeting of the Association. It will be impossible to print correctly a list of addresses and papers received after that date. Secretaries of Sections will insure accuracy in the programme, and greatly facilitate the work of the Committee by sending their lists in time.

C. H. A. KLEINSCHMIDT, M.D.
Secretary Com. Arrangements.

We desire to emphasize the request of Secretary Kleinschmidt for the early completion of the programmes of the various Sections, and hope to present the Preliminary Programme in THE JOURNAL before the meeting. The Official Programme will be issued promptly by the Committee of Arrangements. We are grateful to know that such efficient action has been taken by the officers of the Sections, and the prospect now is that the next annual meeting will exceed in interest any that have preceded it.—ED.

BOOK REVIEWS.

AUSCULTATION AND PERCUSSION. By FREDERICK C. SHATTUCK, M.D., etc. Detroit, Mich.: Geo. S. Davis. 1890. Pp. 121.

This is the concluding number of Series IV of the Physician's Leisure Library.

The work opens with seven diagramatic plates which, were it not for the confusing numbers and letters with long "fingers" to denote their intention, would enhance the value of the text in no slight degree. A physician's life is generally made up of too few hours, and he can therefore ill-afford the struggle of deciphering no less than seventeen tracings or references on a single plate of small size. It will be seen that the placing of such requirement in a "Leisure" library is smilingly significant.

The text is orthodox, dealing first with the lungs, where 56 pages are devoted to a clear and concise statement of the physical signs in health and disease. Then follows Part II—heart and aorta—the concluding chapter of which, however, touches upon physical exploration of the liver, spleen, stomach, and pancreas. Altogether this little manual will find a place of some value.

A GUIDE TO THE PRACTICAL EXAMINATION OF URINE. For the use of physicians and students. By JAMES TYSON, M.D., etc. Seventh edition. Revised and corrected. With a colored plate and wood engravings. Philadelphia, P. Blakiston, Son & Co. 1891. Pp. 255.

No important change has been made in issuing a new edition of this handy little volume. The general arrangement and plan of the work makes it a ready guide for the student, as well as enabling a quick reference for the busy practitioner.

Prof. Tyson still holds—and we do not know but wisely—to the superior reliability of the time-honored "heat" test for albumen. In the light of claims—which are not without well-accepted authority—put forth from time to time of late years, we were prepared to see their advocacy or adoption; but in language not to be misunderstood the author treats the claims honestly, and as honestly expresses his thorough satisfaction with those tests which in his hands have left but little more to be desired.

SPECIAL CORRESPONDENCE.

Shall The Journal be Removed to Washington?

WHAT OUR ADVERTISING PATRONS HAVE TO SAY ON THE REMOVAL QUESTION.

To the Editor:—Permit me to request the insertion in THE JOURNAL of the accompanying circular and blank sent out to our advertising patrons, with their replies thereto in tabulated form. My reason for seeking space in your columns is the desire that the members of the Association may be fully informed as to how business men, who contribute nearly one-half the income of THE JOURNAL, look upon the proposition to remove it to Washington. Though the majority of our advertisers are not members of the Association, still their opinion, coming as it does from practical business men having a financial interest in its success, should have weight in the settlement of this question.

Some members may look with disfavor upon this method of gauging the business future of THE JOURNAL, to such I would say, most respectfully, that when the advertising interests of THE JOURNAL were confided to my care I found them very low, but by persistent and systematic work have increased the receipts from that source three hundred per cent. This statement is made to bring out the point that the bulk of this increase is due to having proved to the satisfaction of advertisers that THE JOURNAL is THE profitable medical advertising medium of the West.

It was therefore desirable to obtain their views in the premises, and after obtaining them to submit them to the members of the Association as detailed in the table on pages 536–7, which shows that 15 voted for Washington, representing 13 per cent. of the cash receipts from advertising for the financial year just closed; 45 for Chicago, and a few not voting.

J. HARRISON WHITE,
Business Manager.

Office of THE JOURNAL,
68 Wabash ave., Chicago.

Dear Sir:—Some members of the Association are desirous of making Washington the permanent home of THE JOURNAL, and the question is to come before the members at their annual meeting next May. Being of the opinion that the advertising patrons, who contribute so largely towards its financial success, should have an opportunity of expressing their views on the matter, I ask you to consider the question in all its bearings, and give me your reply at an early date. Very truly yours,

J. HARRISON WHITE,
Business Manager.

Chicago, January 2, 1891.

PLEASE FILL OUT BLANKS AND RETURN IN ENCLOSED ENVELOPE.

Do you favor the removal of the Journal of the American Medical Association from Chicago to Washington? . . . . . .

Would you consider the Journal of the same value to you as an advertising medium if located in Washington? . . . . . .

Remarks . . . . . .

Signed . . . . . .

To the Editor:—The question of the removal of THE JOURNAL from Chicago to Washington, which is now being discussed by many physicians in every part of the United States, is, to my mind, clearly opposed by a large majority of the members of the Association—and I, for one, say, Let it remain where it is, a place which is approved of by the great majority, as I firmly believe.

B. S. WOODWORTH, A.M., M.D.

Fort Wayne, Ind., March 28, 1891.

To the Editor:—Except as I desire to see THE JOURNAL represent the best thought and the highest standard of the American medical profession, I am in no way interested in its place of publication nor in who edits it.

I do not know the origin of the agitation to take THE JOURNAL to Washington, but I surmise that it arose out of a feeling that some change was desirable.

I do not know how much editing the present editors feel justified in performing, nor exactly what is meant by the term "supervising editor" employed by Dr. Reed in his communication in THE JOURNAL of March 28, but certainly the "supervision" has been somewhat lax. Doctors are not always good writers, I have no reference to the old illegible prescription story, I mean that they do not always pay much attention to the rules of grammar or composition. And even those who have a message of importance to communicate, are not by any means direct and certain in their statements.

My impression of editorial duty extends beyond writing leaders, and making up the contents of a number of THE JOURNAL, and until the editors feel warranted in rigidly enforcing the ordinary and reasonable rules of composition, and either editing or rejecting all communications which make both writer and JOURNAL ridiculous, there will continue to be dissatisfaction, whether THE JOURNAL is published in Chicago or Washington.

Dr. Reed's comparisons are very lame. Apply his remark about employing a practical physician or surgeon. Does any one for a moment suppose that if Dr. Reed

WHAT THE ADVERTISERS SAY ABOUT IT.

NAMES AND ADDRESSES OF ADVERTISERS.	For Removl.	Against Removl.	REMARKS.
Antikamnia Chemical Co., St. Louis, Mo		1	In our opinion a journal located in an active business centre is more in touch with business necessities, and quicker to respond to new ideas, than others even though they may be more esthetically located under the ægis of the Capitol.
Armour & Co., Chicago		1	We are not deeply interested in the question.
Baker, Charles S. & Co., Chicago		1	
Baltimore College Physicians and Surg., Baltimore, Md	1		We wish the Journal continued and increased success.
Battle & Co., St. Louis, Mo		1	Washington is a political centre and not a business centre.
Bernd, Henry & Co., St. Louis, Mo		1	To any other Western city, "*Yes.*" We do not favor anything that will take prestige away from the West. We do not see why Washington is any better than any other city. From a commercial standpoint it is the poorest city in the U. S.
Blakely, C. H. & Co., Chicago		1	
Brown, Drs. Geo. & Geo. A., Barre, Mass		1	No. Would not be of same value to us.
Caldwell, Frank H., Sanford, Fla		1	
Canton Surgical and Dental Chair Co., Canton, O		1	We consider Chicago the most desirable place in the U. S.
Chaim, Adolph, Chicago		1	
Channing, Dr. Walter, Brookline, Mass.	1		Yes.
Chicago Medical College, Chicago		1	Dr. John E. Owens, Chairman of Adv. Com., objects to the removal.
College of Phys. and Surgeons, Chicago.		1	Dr. D. A. K. Steele, Secretary, writes: In reply to your note of inquiry regarding the desire of some members of the Association to make Washington the permanent home of the Journal, I would state that it is my opinion, as one of the advertising patrons of the Journal, that its removal to Washington from Chicago would be a mistake. I am decidedly in favor of its continuation here.
Cooke, George F., M.D., Oxford, O		1	No. Would not be of same value to me as an advertising medium.
Crittenton, C. N., New York City		1	We deem it quite unadvisable for your publication to remove to Washington, D. C., as it would, in our judgment, lose its prestige, owing to the competition it would be obliged to meet from other medical journals.
Cincinnati Sanitarium, College Hill, O		1	Dr. Orpheus Everts, Supt., writes: I see no sufficient reason for removing the Journal from Chicago, and if it is to be moved should not favor Washington as its permanent home.
Codman & Shurtleff, Boston, Mass.		1	Decidedly No! We think it much better that the Journal should remain where it is, as we value it for its present large circulation, which would be necessarily lessened if the proposed removal were effected.
Dauchy & Co. (Liebig Ext. of Beef), New York City.		1	Our opinion is decidedly adverse to the removal of your paper from a great business centre like Chicago to the city of Washington. We do not see how it is possible for the paper, if published from the latter point, to exert as immediate an influence on business men as if it issued from Chicago.
Detroit Coll. of Medicine, Detroit, Mich.		1	No. Would not be of same value as an advertising medium.
Drevet Manuf'g Co., New York City.	1		Your Journal has been giving us satisfactory returns, and we feel confident that its removal to Washington may increase the number of your subscribers.
Fredigke, Dr. Charles, Chicago		1	
Garden City Bindery, Chicago		1	No value to us if removed.
Gardner, R. W., New York City	1		Yes.
Gray, J. Lucius, M.D., Chicago.		1	The present headquarters of the Journal on geographical, scientific and editorial grounds cannot be improved upon, in my judgment.
Gorges, Mrs. J. A., Rogers Park, Ill		1	
Hance Bros. & White, Philadelphia.	1		Yes.
Haldenstein, I. (Apollinaris Co.), New York City.		1	From the point of view of my customers, the Journal would not derive any advantage from being located in Washington that it does not possess in Chicago, while Chicago in a business way offers greater facilities than Washington.
Horlick's Food Co., Racine, Wis.		1	NO! in letters almost an inch in depth.
Imperial Granum Co., New Haven, Conn		1	We can see no objection to Chicago, but if a change seems necessary, why Washington is neutral ground, and should satisfy everybody. However, the present tendency seems to be for all roads to lead to Chicago.
Keener, W. T., Chicago.		1	I am quite confident that the business interests of the Journal would suffer loss by the proposed change.
Kirkley, C. A., M.D., Toledo, O	1		Yes.
Lagorio, Dr. A., Chicago.		1	
Lambert Pharmacal Co., St. Louis, Mo.		1	New York, Philadelphia, St. Louis, Boston, Baltimore and Cincinnati support weekly medical journals. Evidently the Association Journal must answer the purpose of a weekly for our second largest city. In giving up this paraquisite you offer an excellent opportunity for the establishment of a weekly medical journal as a business enterprise, and force the Association Journal into more direct competition with the great medical weeklies of the East. In our opinion it will suffer severely by the change.
Levytype Co., Chicago		1	
Madson, William, Chicago.		1	
Magruder, G. L., Dean Georgetown University, Washington, D. C.	1		
Marcy, Henry O., M.D., Boston, Mass.		1	No. (See his letter as a member in the Journal of January 31.)
Mattison, J. B., M.D., New York City	1		Yes. Most heartily favor the change. It is a National journal, and should be published at the National centre.
Maury & Mitchell, Memphis, Tenn		1	No. Would not consider it of the same value to us as an advertising medium if removed to Washington.
Med. Dep't Columbian University, Washington, D. C.	1		To the first question, yes. To the second, not necessarily the same, but as good, or perhaps better. The Journal should be central, National, and weaned from all local interests.
Med. Dep't University of Michigan, Ann Arbor, Mich.		1	Dr. W. A. Campbell, Sec'y, writes: From the standpoint of an advertiser, and for our use, I consider Chicago the best location for the Journal.
Millard, P. H., M.D., Minneapolis, Minn.		1	Dr. P. H. Millard, Dean Med. Dep't Univ. of Minnesota, writes: The removal of the Journal will forfeit our entire patronage.
Movius, J. & Son, New York City		1	No.
McIntosh Battery and Opt. Co., Chicago.		1	No. Dr. McIntosh verbally stated that they would stop their advertisement if the Journal is removed from Chicago.
New Table Co., St. Louis, Mich.		1	No. Chicago is the second great business centre of the U. S., and in twenty years will be the first in importance. Washington will not be anything but the political quasi centre.
Parrish, Wm. G., M.D., Burlington, N. J.	1		It appears to me that the Journal would have the same circulation through the West, where it is well known, if at Washington as a headquarters, and would gain *still more East and South* by the change, in subscribers and advertisers.

Names and Addresses of Advertisers.	For Removal.	Against Removal.	What the Advertisers Say About It.
Parke, Davis & Co., Detroit, Mich.	. .	1	We are satisfied as it is. The management of the Journal of the A. M. A., as located in Chicago, is convenient to us at Detroit, and it being assumed that the Journal has a large local circulation in the West incidental to its publication in that section of the country, we believe that it exercises a more satisfactory influence for Western advertisers than would be the case if located East.
Peacock Chemical Co., St. Louis, Mo.	. .	. .	We believe the Journal would wield the same influence from either point, *but consider the present location and management hard to improve upon.*
Phillips (C. H.) Chemical Co., New York City.	. .	1	Do not favor removal. Would not be so valuable to us as an advertising medium.
Post-Graduate Med. School, Chicago.	. .	1	Dr. W. Franklin Coleman, the Secretary, writes: The East is well supplied already with weekly Journals. The P.-G. Med. School desires to come in contact, through advertising, with Western physicians. The removal of the Journal to Washington would lessen our interest, and I think that of the Western physicians, in it.
Rio Chemical Co., St. Louis, Mo	. .	. .	We do not think the removal of the Journal to Washington would make any material difference.
Robinson-Pettit Co., Louisville, Ky	. .	1	We would say that in our opinion Chicago is a better point for issuing the Journal than Washington would be, on account of its central location.
Ruebsam, John E., Washington, D. C	1	. .	I favor the removal. The Association will grow with the Nation's Capital.
Rush Medical College, Chicago.	. .	. .	Dr. J. H. Etheridge, Sec'y, writes: Am indifferent. It would be very interesting to enquire what criticism of the local directory of the Journal has led up to this move. Perhaps there is something written between the lines that would be interesting.
Sander & Son, Dillon, Iowa	1	. .	We favor such a move as the right step at the time in the right direction.
Schieffelin, W. H. & Co., New York City.	. .	. .	We believe the Journal to be a good medium for advertising, and can express no preference as to the location of its office of publication.
Scott & Bowne, New York City.	. .	1	We desire to say that the location of your Journal in Chicago is very much more to our interest and advantage than it would be located in Washington. As we are well represented in Eastern Journals, we do not think we would care to advertise in it if you changed to that city.
Sharp & Dohme, Baltimore, Md.	1	. .	We are in favor of transferring the permanent home of the Journal to Washington.
Sharp & Smith, Chicago	. .	1	No. We would not advertise in the Journal if same was located in the East.
Smith, Bradner & Co., Chicago.	. .	1	
St. Louis Med. College, St. Louis, Mo	. .	1	Dr. H. H. Mudd, Dean, opposes removal and considers the Journal would not be of the same value as an advertising medium.
Sultan Drug Co., St. Louis, Mo.	. .	1	Since the Journal is a National affair, it should be located centrally. Next to St. Louis, we prefer Chicago. If we have a voice in the matter we must proclaim for the West.
Tarrant & Co., New York City.	1	. .	Yes.
Tyndale Eucalyptus Co., Chicago	. .	1	
Walnut Lodge Hospital, Hartford, Conn.	. .	1	(See Dr. Crothers' letters in the Journal of January 31 and March 21.)
Warner, Wm. R. & Co., Philadelphia	1	. .	The circulation and the quality of a medical journal are the questions of most importance to the advertiser. Your Association being a National one, it is quite proper, we should venture to say, that its Journal should be published in Washington.
Woodruff, I. D. & Co., New York City.	. .	1	Every advertiser will admit that there are too many medical journals. About three-fourths of them are located East of Indiana and North of Washington. Do not aggravate matters. Stay where you are. *There* you are the leading weekly medical journal. *Here* you will have to take fourth or fifth place.

wanted a journal of real literary and scientific merit published he would employ as editor any one merely because he was a practical physician, if he were not satisfied that his practical physician knew when a sentence had a predicate and had the courage to put one in when it was necessary in Dr. Blank's very good "practical" article on pneumonia, or to take out the double negative from Dr. J. Doe's otherwise readable article on fractured patella?

I am not questioning for a moment the ability of the present editorial staff, but I have often, in reading THE JOURNAL, queried whether the "intelligent compositor" or "vigilant proof-reader," or the—shall I say timid—editor was responsible for some of the assaults upon our mother tongue which so often appear in the pages of THE JOURNAL.

As the voters who have voted through THE JOURNAL appear to be nearly all of one mind, let us hear from them and others as to how much editorial cutting and mending they are willing their manuscripts, correspondence as well as contributions to the scientific papers, shall undergo before being sent to the printer.

If the Association will sustain the editors and the editors will fearlessly edit the articles before sending them to the printer, I think there will be a steady increase in the value and reputation of THE JOURNAL.

We may not, like one of our law-makers, "care much for abroad," but I have reason to know that THE JOURNAL, through some of its articles, has not reflected much credit upon the literary ability of the profession.

E. N. BRUSH, M.D.

Philadelphia, March 30, 1891.

To the Editor:—I know of no reason why THE JOURNAL should be moved from Chicago. It *always* reaches me on time and is chock full of the very best medical literature. I prefer to let well enough alone.

D. A. WALKER, M.D.

Friendship, Tenn., March 31, 1891.

To the Editor:—It is immaterial to me where THE JOURNAL is published, provided it is conducted exclusively in the interests of scientific medicine and the greatest good of the profession. That it does not fully meet the requirements of either now is a source of dissatisfaction, and creates a desire for change in the minds of many members of the Association. But, if these deficiencies can be corrected without removal, it is better to allow it to remain in Chicago, for the present at least, to try. Believing that it can be thus improved and brought up to the ideal standard where it is, and disclaiming all carping criticism, I offer suggestively the following to that desirable end.

1. In the first place, then, THE JOURNAL should be printed on *plain* and not on *glazed* paper, which from its reflection, dazzles the eye, irritates the optic nerves, muscles and lobes, brain and mind, and sympathetically other parts of the system, thus impairing the sight, causing eye-strain with spasm and twitching of muscles, ocular and cerebral hyperæmia, dizziness, headache, neuralgia, melancholy, petulance, irascibility, and other disorders of the physical, mental and moral nature, more or less serious. It is thus a serious obstruction to the acquisition of knowledge and preservation of health of the whole being, body and soul, which should be discarded as dangerously insanitary and wholly unscientific, especially discreditable in a publication under the auspices of physicians, the special exponents thereof. Besides, it is not only antagonistic to the well-being of mankind, but also to commercial success, for no sensitive, or enlightened person will

even willingly read, except occasionally and for brief periods, much less subscribe for such a glaring sight and health-destroying publication, no matter how cheap or meritorious it may be. This evil can and should be speedily rectified by substituting plain for glazed paper, not only in THE JOURNAL, but all other publications, and people should protect themselves by tabooing all printed matter on glazed paper in the interests of good sight, good health, of body and mind, good temper and morals, education, enlightenment, development and civilization.

2. While THE JOURNAL should stimulate original research, and uphold American medicine especially, it should not be provincial or subservient to foreign ideas, but as cosmopolitan as medicine itself, truth being universal, teaching, developing and culling it from all sources, with a due regard to the philosophy as well as the art of medicine, for the highest educational purposes, and to enlighten the concrete with the abstract knowledge of truth, so that principles and practice, science and art shall go together, as they are mutually essential to the perfect development of medicine. The prevention and treatment of every disease is a problem to be solved in accordance with mathematical, logical and scientific principles, as a guide to insure the greatest certainty and success in both. Hence empiricism can only be employed with advantage in so far as it is necessary for disclosing, testing and determining the truth. Thus enlightened empiricism or rational experiment inductively leads to the advance of the science, and deductively promotes the philosophy of medicine (which, by the way, should be the crowning part of the curriculum of every medical college), while blind empiricism is merely chance experiment and arrant quackery. Secresy and assertion with wild, haphazard or irrational experimentation are unscientific, and involve in confusion, doubt, disappointment, disaster and death.[1] Thus accurate observation, experiment and experience, guided by reason, aided by judgment, leads directly to a knowledge of the truth in medicine as in everything else, and it is the mission of THE JOURNAL to present this in the most definite, condensed and available form with as little erroneous or extraneous matter as possible, so as to educate and enlighten the profession to the fullest extent.

3. The department of notes and news should be as brief, impersonal, professional and general as possible, noticing only subjects of immediate practical interest to physicians everywhere, and omitting as "flat, stale and unprofitable" all tending to promote personal, local, or extraneous interests of any kind, for it is merely gratuitously advertising them, and concerns few beyond those mentioned. The space thus occupied and wasted should be utilized with useful medical ideas of import to practitioners in general as contributing to the relief of the afflicted and suffering, and desirable to those trying to solve the problems of health and disease, life and death, everywhere throughout the world.

4. As the representative of the American Medical Association and scientific medicine THE JOURNAL should avoid any encouragement to empiricism or quackery, domestic or foreign, and rigidly exclude from its advertising as well as reading pages all articles relating thereto in every shape and form, especially secret and proprietary agents of polypharmacal and physiologically incompatable admixtures or hodge podge of drugs, under fanciful and misleading names, or some ingredient thereof without the full formula, or otherwise concealed so that physicians cannot fully know their constituents and determine accurately their doses and uses, independent of the prejudiced and often erroneous statements of their makers and vendors. THE JOURNAL is not the organ of any one person, institution, clique, trade, local or extraneous interest whatsoever, but of the Association or profession in general, and it should not be the medium of advertising nostrums, or secret, disguised, and quack preparations of any kind. We rightly denounce the religious and secular press therefore, yet inconsistently allow our own professional organ to be used for the same base purpose for a little pelf, thus degrading it, ourselves, our profession, and medical science. Of course, all persons, physicians included, are justly entitled to a due recompense for their discoveries in medicine as in everything else whenever made known, but secresy and deception therein is opposed to progress and should not be tolerated, by physicians at least, as they prevent those who are induced to use them from comprehending their nature, acquiring correct knowledge, and intelligently performing their duties to their patients, while giving false ideas and experience detrimental instead of beneficial to those most concerned. Hence the evils therefrom are manifold in being fraudulent and injurious throughout, for besides the immediate pecuniary loss, there is often direct harm or failure to promote the welfare of the sick and suffering with humanity in general, as well as detrimental to medical science. While life is based upon reciprocity, it is only in the domestic circle that it is of a more purely personal nature, for outside of that it must necessarily be more exclusively of a commercial character, though insensibly it merges throughout into free efforts for the relief of the helpless and unfortunate, yet it is only those favored with a surplus of health and wealth who can afford to work gratuitously for the good of mankind. But many are so selfish as to have no feeling for their fellows, as they will work and starve them to death, and even rob the sick and afflicted for self-aggrandizement. Such are like sponges that absorb everything they can, and give out nothing but what they cannot hold and what is squeezed out of them. These greedy sharks would monopolize everything and leave others to suffer and perish, they must, therefore, be actively antagonized to restrain their cruel propensities, especially in the case of empirics, nostrum-makers and quacks of every kind, to oppose and afford them as little opportunity as possible to rob the sick and thrive on the ignorance, suffering, and misfortunes of others, particularly by refusing to aid them in their nefarious schemes to disseminate a knowledge and promote the use of their empirical preparations under the sanction of medical journals and physicians, who thus become accessories to all the evils therefrom. Besides, the tendency of this pernicious practice and support of charlatanry is to degrade the profession itself and reduce physicians to mere medical mechanics, not to be thinkers and leaders, but dependents and servants, to follow the directions of empirics, nostrum-makers and traders. Hence THE JOURNAL should be kept free from all such objectionable matter and cease to be an agent of evil, for which the members of the Association are responsible, and should it not be so improved where it is, then it would be better to remove it to Washington or some other place where it could attain the ideal National, professional and representative character, exempt from all such obnoxious business, quackish, and other degrading influences.

5. Finally, THE JOURNAL should be under stricter *medical* supervision throughout all its pages of reading and advertising alike, inculcating therein most fully and purely the principles and practice of scientific medicine, both preventative and curative, refusing to pander to empirical, personal, clique, local, trade, nostrum, quack or extraneous interests of any kind, so as to insure the greatest progress and highest development of rational medicine. It would thus become a shining exponent of the science and philosophy of medicine and leader of professional knowledge, not only a creditable organ of the American Medical Association, and a source of enlightenment and pride to each member thereof, but to every physician of this country and abroad, as its beneficent influence would extend indefinitely throughout the world.

GEO. J. ZIEGLER, M.D.

Philadelphia, April 2, 1891.

[1] Here follows a criticism of the "Koch occult lymph" which on account of its length, and being foreign to the subject under discussion, is omitted.

Editorial Opinions of the Medical Press.

A question at present agitating the American Medical Association is whether The Journal shall be removed from Chicago, its present place of publication, to Washington, D. C. The subject has just now been brought into prominence through a special meeting of the Trustees of the Association, held at Washington, D. C., November 13, 1890. This meeting was called by the President, Dr. Hooper, of Little Rock, Ark., upon a requisition signed by a majority of the Board, for the special purpose of considering the question, upon which a special committee had been appointed. The following report was then received and adopted:

Resolved, That the sense of the Committee be that the home of The Journal of the Association should be permanently at Washington, D. C.

Resolved, That the Trustees incorporate the foregoing resolution in their report to be presented at the next meeting of the Association.

The following resolution was also adopted.

Resolved, That the Trustees recommend the members of the Association, or the various State and local medical societies in affiliation with the Association, to contribute or subscribe funds for the erection of a permanent building as a place of meeting, as well as a library and office for the American Medical Association.

The immediate result of this action, and its subsequent publication in The Journal, has been a very animated discussion, into which considerable heat and not a little personal feeling seems to have been injected. This is exceedingly unfortunate. The question is not in the least a sectional one, and should have no possible personality involved, but must be considered on the broader basis of the welfare of The Journal, and, therefore, of the Association, and it is from this standpoint that we shall discuss it. We shall assume, as we believe, that the committee making the recommendation did so under the conviction that it was "for the best interests of all concerned," and in seeking a reason for this action find the second resolution, that really seems to be the key to the situation. The proposition to establish a home for the Association is not new; it emanates from the same sentiment that would hold every second meeting at the National Capital. The establishment of a permanent home in Washington, with *annual* meetings in that city, logically carries with it the removal of The Journal to headquarters. We do not believe for a moment that this scheme will ever be carried out, or that the Association will deliberately adopt a suicidal policy. The American Medical Association must be of the whole United States; it must be thoroughly National; with its loose and defective organization, a tendency to centralization would be fatal to its existence. The Association should meet each year in a different city, and, as far as practicable, in localities widely apart. At every meeting there is a fresh accession to the membership, drawn largely from the surrounding country, and a fair proportion of these accessions become permanent members. Does any one suppose that similar additions would take place if the annual meetings were held year after year in Washington, or any other city? It needs the immediate influence, the presence of a large meeting and the enthusiasm evoked to compel this annual increment. To a large number of the profession, the American Medical Association is only a name, and this may be emphasized by the comparatively small number who have embraced the privilege of joining "by application." To one who has attended a meeting, the Association is a living reality, and incidents happening twenty or twenty-five years ago have, as we know, been cherished and oft repeated by those who in that period may have met the Association at most but twice. The centre of population is rapidly moving westward, and with this increase of population the number of physicians located in the West has proportionately increased. The increase has been greatest in the Pacific Coast States and Territories; yet how many physicians of this vast region could afford to attend a meeting held in Washington, and to take an expensive trip, involving an absence of at least three weeks. It may be urged that a permanent home and the removal of The Journal to Washington does not imply that meetings shall be held in that city, but we regard it as an entering wedge that should certainly be withdrawn.

As for the question of the removal of The Journal, the reasons so far advanced seem to be mainly sentimental. We have watched the medical press carefully for some solid argument in favor of the change, but none are forthcoming, while the testimony against it is overwhelming. The present location is central; Chicago, as a great city and trade centre, offers facilities for publication that are not surpassed by other cities; as a great railroad centre its opportunities for distribution and mail service are unequalled. This latter fact chiefly concerns us in the West, as The Journal now reaches us on Monday, two days in advance of any of the Eastern weeklies, and three days ahead of all but one. It has been stated that 85 per cent. of its advertisers have expressed a preference for Chicago as the place of publication. While we do not accept these figures at their face value, we still believe that a journal published in Chicago is much more likely to have a large amount of advertising than the same journal in Washington. Outside of these facts there are no propositions for discussion. The Journal is not what its best friends desire it to be. On the other hand, it is questionable whether under existing circumstances it could have been made better, and certainly its present location has had nothing to do with the matter. There are two factors needed to make The Journal what we desire it to be—*the* American medical journal: 1. A large and increasing income. 2. An able and competent editor, who shall be allowed to *edit* The Journal untrammeled by the direction or supervision of any authority save that of the Association in general. These factors can be attained as well in Chicago as in any other city, and a careful study of the question shows that there are unmentioned conditions giving her superior advantages. The question is to be voted upon at the next meeting—*i. e.*, the question of removal to Washington is to be voted upon at Washington—a manifestly unfair proceeding, giving, as it does, a preponderance to the local vote. Arrangements should be made for an early canvass of the entire Association, thus giving every member the opportunity of expressing an opinion, though not of voting.—*Occidental Medical Times*, March, 1891.

For years there has been a move on foot by certain self-constituted custodians, who flatter themselves that they possess all the brains and refinement of the American Medical Association, to remove The Journal of the Association to Washington. These "wise men of the east" whose habitation is circumscribed by the Alleghanies on the West, the Potomac on the South, the St. Lawrence on the North and the pine clad hills of Maine on the East, would take to themselves the sole prerogative of dictating the editorial utterances of The Journal. This clique has its head at Washington, D. C. Not satisfied with the honor the capital can confer upon them, this admiration society, composed of medical politicians, would take to themselves the complete control of our National Journal and crack its fingers in the face of the great South and West. Is this right? Is it just? Will it be tolerated?

The reason given, ostensibly, for removing The Journal to Washington, is that it, being a national organ, should be published at the capital of the nation. This is the merest nonsense. The truth is, a few of those would-be censors desire to get control of The Journal for no other reason thad self glorification. Let every member of the Association from the South and West, who attend the next session, see to it that this move to rob them of their just dues be unceremoniously decapitated.

The great West has about ceased to bow its knee to the sweet scented, velvet fingered, esthetical East. Washington City is scarcely large enough to make a respectable

suburb to Chicago, yet they—the medical politicians and presto pass quick manipulators—have the immaculate gall to attempt to gobble up and control our National Journal. Can they do it?

In our next issue we shall give some facts and figures demonstrating the absurdity and injustice of the selfish move.—*The Texas Health Journal*, March, 1891.

MISCELLANY.

CONVENTION OF MEDICAL LICENSING BOARDS.—At the suggestion of Dr. William Perry Watson, Secretary of the State Board of Medical Examiners of New Jersey, Dr. Rauch has called a meeting of one or more representatives of the various medical licensing boards in the United States, to be held in Washington, D. C., on May 6, during the meeting of the American Medical Association, in order to effect a permanent organization and to make rules and examinations as nearly uniform as possible. Licensing boards now control medical practice in 21 States. It is expected that much good will come of this meeting.

THE BIG FOUR AND THE ANNUAL MEETING OF THE ASSOCIATION.—To members of the American Medical Association who contemplate attending the annual Meeting at Washington, D. C., May 5th to 8th, a few words in regard to the best means of reaching Washington will no doubt prove acceptable. The recognized line from Chicago is the Popular Big Four Route in connection with the Scenic Chesapeake & Ohio Ry., from Cincinnati running via White Sulphur Springs, through the beautiful mountain regions of the Virginias, over its own tracks into the City of Washington.

Passengers via this popular line have the choice of two elegant trains, starting from Lake Street Depot, Chicago, —the morning train equipped with elegant parlor cars, cafe dining car and luxurious coaches, makes connection at Cincinnati with the Famous "Fast Flying Virginian" via the C. & O. Route, assuring passengers of first class service, including Dining Cars, for the entire trip. The evening train from Chicago is equipped with private compartment buffet sleeping car, standard Wagner palace sleeping car and elegant reclining chair car and makes connection with the "Washington Fast Line" via the Chesapeake & Ohio Ry., affording a day-light ride through the beautiful Ohio Valley, and across the scenic Blue Ridge Mountains into the Capital.

These trains are vestibuled throughout, provided with an unequaled dining car service and afford every comfort and convenience of modern railroading. For tickets and full information call on or address J. C. Tucker, General Northern Agent 121 Randolph St., Chicago, Ill., D. B. Martin General Pass. Agent Big Four Route Cincinnati, O.

LETTERS RECEIVED.

Ansonia, Conn., McArthur Hypophosphite Co.
Baltimore, Md., James O'Gorman.
Beaver City, Neb., First National Bank.
Boston, Dr. Fairfax Irwin, Dr. J. L. Williams.
Brooklyn, N. Y., Dr. Wm. McCollom.
Buffalo, N. Y., Dr. Geo. E. Fell, Ross, Daniels & Co.
Burlington, N. J., Dr. Wm. G. Parrish.
Chicago, Ill., Dr. R. L. Mintie, Subscription News Co., Dr. S. J. Jones, Dr. H. N. Moyer, Dr. M. R. Brown.
Cincinnati, O., Dr. C. G. Comegys.
Cumberland, Md., Dr. F. T. McKaig.
Des Moines, Ia., J. C. Cummins.
Fleetville, Pa., Dr. F. B. Davison.
Hooper, Neb., Dr. M. T. Zellers.
Howard, R. I., Dr. Geo. Keene.
Indianapolis, Ind., Dr. E. S. Elder.
Jacksonville, Ill., Ward Bros.
James, Ala., Dr. G. Caldwell.
Kansas City, Mo., Dr. T. L. Bennett.
Little Rock, Ark., Dr. T. E. Murrell.
Marion, Ind., Dr. Wm. Flynn.
Milwaukee, Wis., Dr. H. V. Würdemann, Dr. N. Senn.
Nashville, Tenn., Dr. H. W. Morgan, Dr. Chas. Mitchell, Dr. J. B. Warren.
New Orleans, La., Dr. G. N. Monette.
New York City, Robinson-Baker Advertising Bureau, J. F. Madden, W. P. Cleary, The Drevet Mfg. Co., Dr. M. E. Van Fleet.
Notasulga, Ala., Dr. C. L. C. Atkeson.
Paris, Texas., Dr. W. M. Moore,
Parkersburg, W. Va., Dr. W. H. Sharp.
Philadelphia, Dr. R. J. Dunglison, Dr A. L. Hummel, University of Pa. Press, Dr. Thos. Hay, Dr. W. B. Atkinson, Dr. S. Solis-Cohen, Dr. G. B. Massey, Dr. John Aulde.
Port Byron, Ill., Dr. Wm. H. Lyford.
Racine, Wis., Dr. R. A. Kitto.
Ravenna, O., Dr. O. D. Haven.
Richland Centre, Wis., Dr. Hugh Morrow.
Rockford, Ill., Dr. D. Lichty.
St. Mary's, Pa., Dr. J. H. Hoffmann.
St. Louis, Mo., Rio Chemical Co., Dios Chemical Co.
Ventura, Cal., Bank of Ventura.
Westport, Conn., Dr. L. T. Day.
Wilkes-Barre, Pa., Dr. Maris Gibson.
Williamsburg, Ky., Dr. W. Murphy.
Winslow, Ill., Dr. J. B. Goddard.
Xenia, O., Dr. T. Van Dupuy.

Official List of Changes in the Stations and Duties of Officers Serving in the Medical Department, U. S. Army, from March 28, 1891, to April 3, 1891.

By direction of the President, the following named officers are detailed for duty under the Intercontinental Railway Commission, appointed under a provision in the Act of Congress approved July 14, 1890, for the purpose of making "a preliminary survey for information in respect of a continental railway recommended by the International American Conference," and they will report in person to the Commission in this city accordingly: Capt. Edgar L. Stevens, Third Cavalry; First Lieut. Stephen M. Foster, Fourth Artillery; First Lieut. Lyman W. V. Kennon, Sixth Cavalry; First Lieut. Andrew S. Rowan, Ninth Infantry; Second Lieut. Samuel Reber, Fourth Cavalry; Second Lieut. Charles A. Kitchen, Third Cavalry. Capt. William C. Shannon, Asst. Surgeon U. S. A., for duty as medical officer of the party to which he may be attached. Par. 9, S. O. 73, A. G. O., Hdqrs. of the Army, Washington, April 1, 1891.

Major David L. Huntington, Surgeon, on being relieved by Capt. Henry G. Burton, Asst. Surgeon, from duty at San Diego Bks., Cal., will report in person to the commanding officer, St. Francis Bks., St. Augustine, Fla., for duty at that post, reporting by letter to the commanding General, Div. of the Atlantic. Par. 5, S. O. 71, A. G. O., Hdqrs. of the Army, March 30, 1891.

Capt. Henry G. Burton, Asst. Surgeon, now at San Diego, Cal., on sick leave of absence, is relieved from further duty at Vancouver Bks., Washington, and will report in person to the commanding officer, San Diego Bks., Cal., for duty at that post, relieving Major David L. Huntington, Surgeon, and reporting by letter to the commanding General, Dept. of Ariz. Par. 5, S. O. 71, A. G. O., Hdqrs of the Army, March 30, 1891.

Capt. Van R. Hoff, Asst. Surgeon, leave of absence granted in Order 61, c. s., Ft. Riley, Kan., is extended twenty-three days. Par. 3, S. O. 36, Dept. of the Missouri, March 27, 1891.

Major Joseph B. Girard, Surgeon, is relieved from duty at Ft. Lowell, Ariz., to take effect upon the withdrawal of the troops from that post, and will report in person to the commanding officer, Alcatraz Island, Cal., for duty at that station, reporting by letter to the commanding General, Dept. of Cal. By direction of the Acting Secretary of War. Par. 5, S. O. 70, A. G. O., Hdqrs. of the Army, Washington, March 28, 1891.

Official List of Changes in the Medical Corps of the U. S. Navy, for the Two Weeks Ending April 4, 1891.

P. A. Surgeon Howard E. Ames, promoted to Surgeon March 19, 1891.
P. A. Surgeon Stephen S. White, ordered to the U. S. S. "Baltimore."
Asst. Surgeon Geo. McC. Pickerell, promoted to P. A. Surgeon March 25, 1891.
Surgeon Wm. Martin, ordered to Naval Rendezvous, San Francisco, Cal.
Medical Inspector C. H. White, appointed Fleet Surgeon, Pacific Station.
Asst. Surgeon H. N. T. Harris, ordered to the U. S. receiving ship "St. Louis."
P. A. Surgeon George McC. Pickerell, ordered to Naval Hospital, New York.
P. A. Surgeon C. W. Rush, ordered for duty with Intercontinental Railway Commission.
P. A. Surgeon F. N. Ogden, ordered for duty with the Intercontinental Railway Commission.
Asst. Surgeon James H. North, Jr., ordered to the Navy Yard, New York.
Surgeon F. B. Stephenson, ordered to the U. S. S. "Marion."
P. A. Surgeon T. B. Berryhill, ordered to the U. S. S. "Marion."
Medical Inspector C. H. White, ordered to the U. S. S "Baltimore."
Medical Inspector J. H. Clark, ordered to the U. S. S. "San Francisco."
Medical Inspector A. A. Hoehling, detached from President of Naval Examining Board.
Asst. Surgeon Rand P. Crandall, promoted to be P. A. Surgeon February 27, 1891.
Carl DeWolf Brownell, of Bristol, R. I., commissioned an Asst. Surgeon in the Navy April 1.